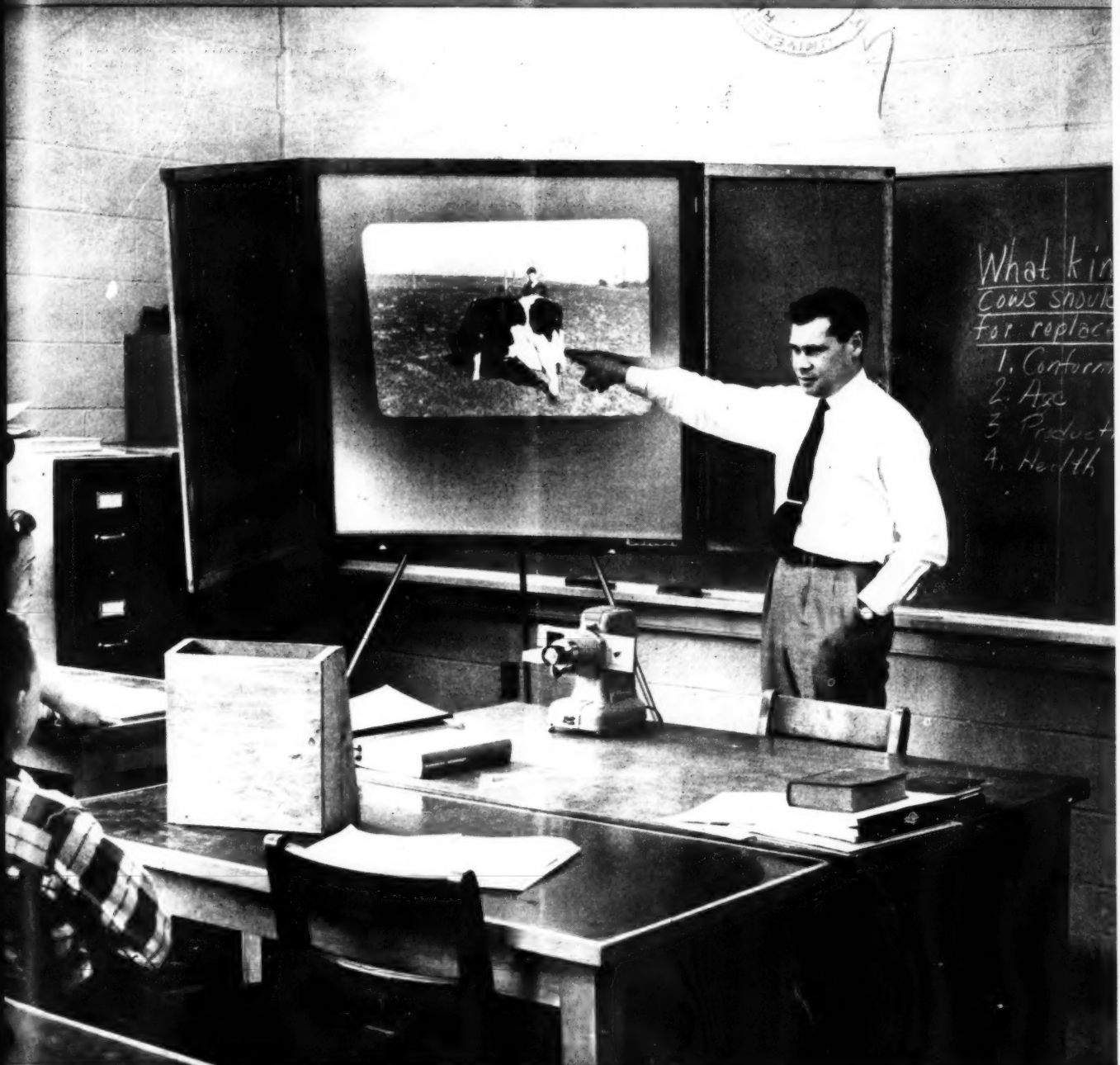


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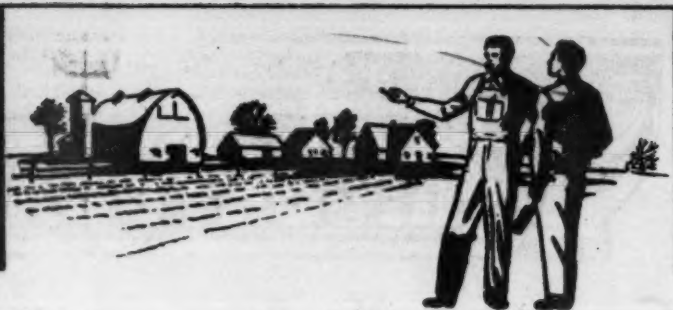


Cover legend, page 90

Featuring

Visual and Audio Aids in Teaching

The Agricultural Education Magazine



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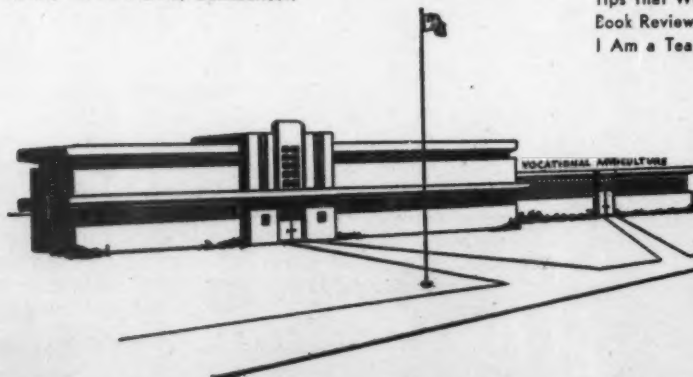
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Editorials

Contests in Vo-Ag

PERCY KIRK, Supervisor, Wyoming

Is the tail wagging the dog? This expression was heard many times during the recent Western Regional Conference of State Supervisors and Teacher Trainers. It was the general consensus of opinion that, in many cases, too much emphasis was being put on contests of various nature and on extra curricular activities in connection with the present-day vocational agriculture program.

It was the opinion of the group that these activities had considerable educational value, however it was felt that the pendulum had swung too far in that direction.

In order to arrive at some sort of a decision and to make recommendations regarding these activities, four basic questions were listed and each activity was considered in light of these questions, which were:

1. Is it educational and an aid to teaching?
2. Will it take excessive time over and above the instructional program and in relation to its educational value?
3. Are excessive amounts of money or awards attached to the contest?
4. How many students are involved?

With these four basic questions in mind, the conference considered twenty activities which they felt were most common in the states. Recommendations for or against participation in these activities were made on four levels, namely—National, State, District, and Local. Most of the activities received a 'yes' recommendation on the local level. As the thinking became closer to the national level, more 'no's' were noted. In fact the only 'yes's' received on the national level were public speaking and talent night.

Such activities as athletics, sweetheart contests, rodeos, etc., were questioned. Summer tours were approved, if for no longer than one week. Activities such as judging contests, leadership training, fairs, and shows were recommended to stop at the state level. Chapter contests were acceptable only if on a Master Chapter basis. The conference went on record as approving the National and State conventions as long as they were handled by the FFA members.

This definitely indicates that the group was desirous of keeping the program on the local level. Possibly this could be changed if multiple teacher departments were more numerous; however this was not considered.

All indications point to the fact that the thinking of the group was in line with that of most local superintendents of schools. In many instances these men encounter considerable difficulty in justifying to their local boards of education and communities, the time and expense of a national trip.

It is the opinion of the writer that the vocational agriculture instructors are doing the best job that has ever been done. This is because they are better trained and have available to them more teacher aids, such as specialists, bulletins, radios and magazines. Television is becoming quite a factor in these aids, also. A large percentage of instructors are taking advantage of conferences, short courses, and summer schools. However, with the added emphasis on contests and other "extras," there is not enough time for the instructor to do the job he would like to do on the local level. Surveys show that instructors now put in from 50-70 hours a week on their programs, which is a most enviable record but one which calls for scrutiny of how the time is spent.

Our purpose in Vo-Ag

BONARD S. WILSON, Teacher Education, University of Tennessee

The "Smith-Hughes Act" of 1917 states, "The controlling purpose of such education shall be to fit for useful employment; that such education shall be of less than college grade and be designed to meet the needs of persons over fourteen years of age who have entered upon or are preparing to enter upon the work of the farm or of the farm home; . . . that such schools shall provide for directed or supervised practice in agriculture, either on a farm provided by the school or other farm, for at least six months per year; . . ."¹

What does this mean? It means, in my opinion, that:

1. Vocational agriculture must be definitely vocational.
2. Vocational agriculture must be only for those who have already made their choice of farming as a vocation and are either (a) engaged in farming already or (b) definitely expecting to enter farming.
3. Young and adult farmers and farm women must be included.
4. Vocational agriculture is to help make desirable

changes in people, not in agriculture, i.e. it is to be education, not a service station.

5. The education must be based upon the needs of the students.
6. There must be learning by doing.
7. Six months of supervised practice is only the minimum.

Many of you agree that the Smith-Hughes Act means just that, but you feel that it should not. You feel that times have changed; that we need to change the purposes of vocational agriculture. Or, perhaps you feel that we need not limit ourselves to this group.

Times have changed and many people would profit by our help. *But*, these changes give further support to the original purposes of vocational agriculture. There is much more need for adult education today. We can't wait in the present world situation to grow a new crop. Action must be taken now. There are fewer farmers and they farm longer. We need fewer replacements, hence fewer, not more boys in vocational agriculture.

(Continued on page 79)

¹ Public Law No. 347, Sixty-fourth Congress—S. 703, Sec. 10.

Does color make a difference? Here is some evidence that it does.

The influence of color on the attractiveness of agricultural leaflets

J. STANLEY, AHMANN, School of Education, Cornell University

MARVIN D. GLOCK, School of Education, Cornell University

V. R. STEPHEN, Extension Teaching and Information, Cornell University

THE USE OF COLOR in an attempt to improve the attractiveness of printed material is common in educational circles. Elementary school teachers in particular have been keenly aware of the effectiveness of harmonious colors in attracting and holding the attention of their pupils. Their efforts and successes undoubtedly have stimulated some of the more recent work on the part of teachers interested in secondary, higher, and adult education. The generally consistent success resulting from the use of color in printed material, however, has not always answered the question of which color or combination of colors is most effective for a certain set of printed material designed to appeal to a specific audience.

Presumably, material using a preferred color would attract attention more readily. Thus, a teacher could, whenever possible, emphasize a known color preference held by any group. Color preferences of both sexes of various age levels and nationalities have been explored by such investigators as Garth,^{1,2} Michaels,³ Shen,⁴ and St. George.⁵ In general they agreed that, although there were only slight differences in color preference between the sexes of a nationality, there tended to be large differences of this type between nationalities. Furthermore, unanimity of preference usually existed at all age levels except the very young children.

From research such as the foregoing have come a series of generalizations. For example, the preferred color of native-born North Americans (both Negro and white) is blue, whereas Mexicans select red, and Chinese, white. Helpful as these statements seem to be, they soon lose some of their meaning in the eyes of the teacher when he realizes that the results were obtained by allowing the subject to choose between color samples which, in size and design, bore little relationship to a realistic situation. Rudisill,⁶ on the other hand, not being primarily interested in arranging colors as to favorableness, allowed children and adults to express their preference with respect to sets of pictures which varied in the amount of color and in the degree of realism, although the content of each set was identical. She concluded that color was increasingly satisfying to the child as it correspondingly improved the impression of realism. In her opinion typical adult opinion tended to over-emphasize the importance of color per se.

The Problem

These somewhat fragmentary results certainly do not answer all of the color problems of the vocational agriculture instructor as he designs posters or supervises the construction of a display. Nor do they answer the problems posed by agriculturalists such as the members of the Department of Extension Teaching and Information of the New York State College of Agriculture at Cornell University, under whose auspices countless leaflets and bulletins are mailed to farmers. The Department is aware that the competition for the farmers' time is keen. Leaflets must possess enough instantaneous appeal that the recipient farmer, as busy or perhaps indifferent as he might be, notice them and possibly reads them immediately.

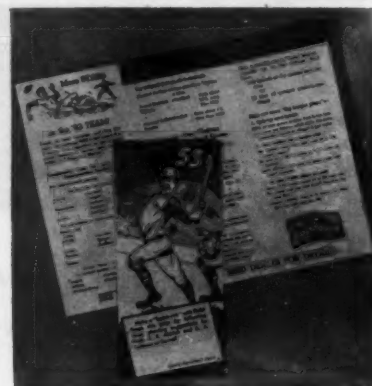
The pilot study here described was conducted in cooperation with the Department of Extension Teaching and Information in an attempt to gain at least limited information concerning the effect of different colors on the attractiveness of leaflets. For this purpose a leaflet entitled "Hits for '53" was used. It discussed field crops and was based on information obtained from S. R. Aldrich and A. A. Johnson of the College of Agriculture of Cornell University. Furthermore, it had not been displayed or circulated prior to this study.

Experimental Procedure

The experimental procedure was confined to the simple process of allowing subjects to choose that leaflet from an array of leaflets, similar in all respects except color, which most appealed to them. In an effort to find a group of subjects for the experiment which would tend to be similar to the type of population normally receiving copies of the leaflets, individuals visiting Cornell University during the annual Farm and Home Week held in March 1953 cooperated in the study.

The leaflet was a single page, 8 by 10½ inches, printed on both sides. It was folded twice and thereby reduced to an 8 by 3½ inch size. One of the exposed sides allowed space for mailing addresses and postal cancellation. The other side featured a cartoon of a baseball batter hitting a ball, thus typifying the baseball theme carried throughout the printed material. This side was the only side viewed by the subject in making his selection of the most attractive color.

The leaflet was printed in five differ-



This shows the cover page and opened leaflet used in the experiment. The dark portion of the picture was in color as described.

ent colors: green on white, red on white, blue on white, brown on white, and black on white. The following Lewis Roberts printing inks were used on white stock: Forest Green 144; Garnet 106; Royal Blue 12500; Picture Brown 2424; and Black. In all cases the entire leaflet was printed in only one color.

A display booth containing copies of all the colored leaflets was operated for two and one-half days. Signs invited the visitors to make their selections, while interviewers asked the following additional questions of the male adult subjects only:

1. What is your occupation?
2. Is your name on the leaflet mailing list?
3. If so, do you read practically all of them?

During the first two hours of the first day, the subjects making their choice were confronted with five stacks of leaflets, arranged in the order of red, green, black, blue, and brown. This sequence, having been determined by random means, was altered every two hours in that the color at the extreme left was moved to the extreme right. This occurred eleven times during the experimental period. The rotation procedure was maintained in an effort to reduce any effect on the choices caused by possible tendencies of subjects to have a right- or left-handed preference, i.e., tending, for example, to like what is on his right more than what is on his left.

The Findings

Complete data were available for 144 male adult subjects, of whom 117 were farmers. The remaining 44 were principally vocational agriculture instructors and county agents. The color preferences of all subjects, when classified on the basis of occupational status, are shown in Table I.

The hypothesis that farmers do not differ from nonfarmers in their color preference with respect to the leaflet could not be tested in as complete a manner as was desired. The small number of nonfarmers selecting certain colors made it necessary to combine all colors except green, then compare farmers with nonfarmers on the basis of the

(Continued on page 92)

There is no lack of visual aids if you will—

Look for local aids in teaching

One should use things at hand

L. A. CHENEY, Vo-Ag Instructor, Williamstown, Michigan



L. A. Cheney

VISUAL aids are interest "catchers," teaching devices and learning aids which many teachers use in teaching classes in vocational agriculture. They may vary from small simple items like a plant, weed, fertilizer sample, or charts to large, more expensive

models and pieces of equipment.

There are several reasons why properly chosen visual aids are important in classroom teaching. First, students can understand and remember what they see much longer than material they read; second, the learning process of students is improved by the use of visual aids; and third, the students are motivated and kept mentally alert when suitable visual aids are used. Visual aids which help students understand abstract ideas are especially valuable in teaching.

Source of Visual Aids

When one uses the term, visual aids, he is likely to think first of a movie or slide film. However, the writer has had many more interesting experiences with the less expensive and more readily available types of aids. For example, when teaching a lesson on pasture, several pasture plants were selected and displayed in the back of the room as one would a bouquet of flowers. Interest was created from the time the boys entered the room and it continued through the hour. As different pasture plants were discussed we used the real plant in presenting the ideas concerning pasture and its improvement.

The first and best source of visual aids is the local community. There, one can gather plants, seeds, data on farming programs and many other types of aids if he is alert to the possibilities.



The blackboard plus a little artistic ability in drawing can provide effective visual instruction. Samples are being used as an additional aid here.

The summer time is ideal for teachers to gather plants for pressing and seeds for mounting in small vials or seed mounts. It is also an opportune time for taking pictures of plant deficiency symptoms and acquiring other aids that can be used to advantage in teaching.

Proper Use of Visual Aids

It is important, along with securing a visual aid, that it be used properly. The improper use of any aid may "side-track" the learning process. For best results an instructor should select the visual aid best adapted to the problems being studied. He must know what the visual aid can contribute to the learning situation and understand it thoroughly. The best aid to use in any particular teaching situation depends on the ability and knowledge of that situation possessed by the teacher. The teacher must understand the use of the aid and what the students are attempting to learn.

Using Visual Aids to Teach Young Farmers and Adults

Visual aids really have a place when working with young farmer and adult programs. The class session is made much more interesting and the problems being studied can be made clearer to the group. In teaching a class in feeding, the author gathered samples of the roughage being fed by several members of the group to use in balancing the grain ration in relation to roughage quality. An adult class differs from an all-day class in that one usually has interested class members. When using aids, the purpose is to illustrate some point that is important on a class member's own farm, or at least in the community. In another case, samples of grass silage were gathered and were tested for moisture, protein and acidity. This information added greatly to the group discussion on crops to use and methods of making grass silage.

Visual Aids Index

An index of visual aids in the department is important, especially to



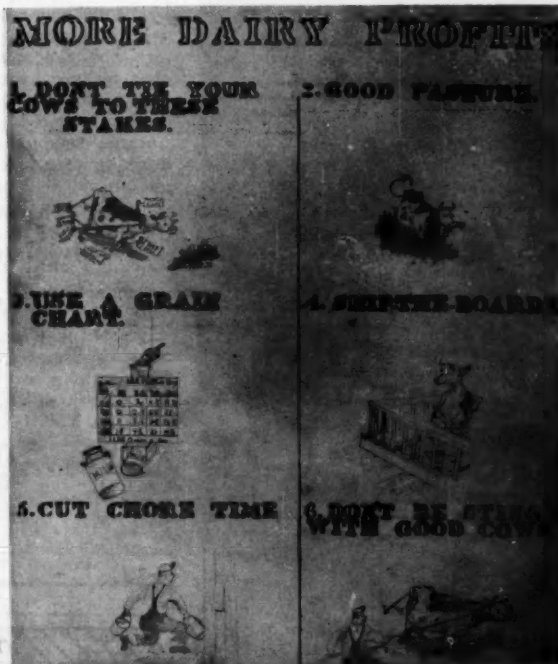
Mounted specimens can be taken out of the classroom for use such as is illustrated in this picture.

a new teacher. Often one will observe a beginning teacher failing to use visual aids that are in the department. The index should be compiled so one could tell at a glance which charts and other items are available for the units being taught.

A visual aids index should be kept up-to-date, discarding charts and material not useful or out of date. A useful chart will show suitable local data that are reliable and easily interpreted. Its mechanical make-up should be well arranged, lettered large enough to be easily read and not too detailed.

It would be well if each teacher would build for himself a device to use in locating quickly the visual aids common in the community and school to use with various topics. Often a teacher has but a short time to prepare for a day-school; young farmer or adult farmer class and

(Continued on page 80)



Cartoons have merit as aids to learning when properly selected and well prepared. Be sure that they emphasize the point desired.

The effectiveness of visual instruction is affected by

Preparation and use of pictures

Some common faults are identified

B. E. WAGGONER, Vo-Ag Instructor, Carmichael, Mississippi



B. E. Waggoner

THE VALUE of visual aids in a teaching program has long been recognized, but their use in our secondary schools has probably advanced more in the last ten years than at any other time in education's history. Today it is not at all uncommon to find a 16 mm projector and opaque and filmstrip projector in a department of vocational agriculture, and even though these conditions are highly desirable, they present problems to the agriculture teacher. Probably one of the greatest problems is that of securing material to show to our students, whether the all-day or adult farmer. Agricultural agencies and manufacturing concerns have done much in providing us with good teaching material but I believe we have long recognized the need for pictures which are on the local level and which emphasize a particular point in our teaching procedure. In order to secure material of this type which would be the most effective it is the agriculture teacher's responsibility to prepare it.

Photography Need Not Be Complicated

Some people seem to believe that the process of making pictures with our modern 35 mm camera, with all of its

gadgets, is much too complicated for them to undertake. I believe if you will reach back and get your camera, regardless of size or make, and follow me in this discussion, you not only will make acceptable pictures, but some that will be invaluable in your teaching program, to say nothing of the personal satisfaction you will receive for your efforts.

First, let us consider our camera and what it does. Remove the back from your camera and point the lens to the light. Set your shutter dial to the point "B" or "T," which ever marking your particular camera shows, press the shutter release and allow the light to come through the lens. Now, with the shutter open, move the *f.* stop lever to the left and right slowly and you will notice that the size opening through which the light passes varies from a small pin-hole to a very large opening. You have now observed one way of controlling the amount of exposure your film gets. Now open your *f.* stop to the largest opening and set your shutter speed at the slowest point and press the shutter release. Repeat the same operation with the shutter speed set at the fastest point and you will observe the time of light passage has been greatly reduced. It is now easy to understand that both the speed of the shutter and the lens opening control the amount of exposure the film receives.

Exposure and Focus

We are now ready to load our camera with film and to figure out the proper exposure for a given shot. Supposing that we are using color film. A good rule of thumb to remember is *f. 11*, with a shutter speed of 1/60 second under average sunny conditions. If you are working under very bright sunny conditions you will probably want to move your *f.* stop setting of *f. 16* or *f. 22*. Remember that each time you change your *f.* value from one figure to the next, you have either doubled your exposure or reduced it by half. When working with color film one must make correct exposure or the picture will be of no value. Therefore, it is very desirable to have an exposure meter to remove all guess work. It will pay for itself in the long run. The last word regarding exposure is to know your particular film. Ask your dealer for information pertaining to the type film you are using, and follow the manufacturer's instructions.

There is one other mechanical setting to be made to your camera before exposure or your finished product will cause you a feeling of disgust. This setting we call "focusing." As you will observe, your camera has a focusing scale which is graduated in feet. Cameras equipped with coupled range finders move the lens in or out when the operator is focusing; however, some cameras do not have this mechanical advantage and the only sure way to determine the distance your camera is from the subject is by measuring it. A twenty-five foot steel tape will be found convenient for this purpose. Never try to make a picture closer than your graduated scale calls for. The pictures below illustrate good and poor focus.

Place Emphasis Where It Belongs

Framing the picture that you expect to use as a teaching aid is very important and should never be overlooked when exposing the negative or slide. Much too often we see pictures that have been exposed perfectly and yet somehow they fail to do the teaching job we had hoped for. Probably one of the first things for us to remember is that our slides are for instructional purposes and not for amusement. There are certain rules of simplicity that we can follow that will create and hold interest in the channels of our endeavor. Every picture we use should emphasize some specific point and the subject of emphasis should occupy about two-thirds of the entire picture as illustrated in shaded areas of Figure 1.

Confusing backgrounds in pictures do more to cause the observer's interest to wander than any other thing. Whenever possible shoot from a low camera angle using the sky as a background or use a high camera angle, making the ground serve as a background.

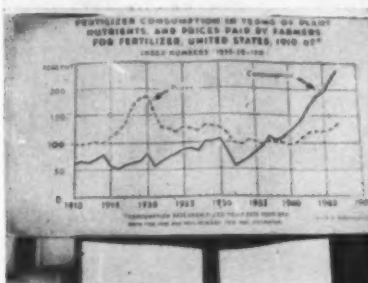
Pictures Should Tell A Story

Extreme caution should be observed when composing subject matter for a picture. Many photographs show very little or no means of comparison, and therefore, are lessened in teaching value. Pictures A and B (page 79) show a good example of making comparison in photographs. They show cattail millet for summer grazing, but in picture B one can not tell if it is one foot or six feet high, while in picture A there is no question about the quality of this grazing.

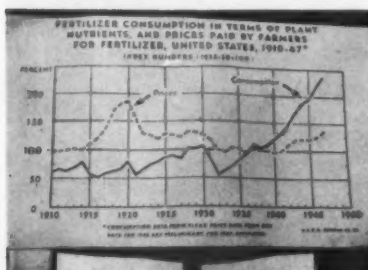
When pictures of display or exhibits are being made, make sure that the pictures do not contain anything that will draw the attention of the class away from the point of emphasis. The following display of materials needed in soldering will illustrate this point.

Every teacher realizes the importance of continuity in his teaching procedure.

(Continued on page 79)



Poor Focus



Good Focus

Figure 1



Variety plus pupil participation
are combined in—

Using visual aids effectively

As reported by

NATHAN H. CLARK, Instructor in Ornamental Horticulture,
Essex County Agricultural School, Hathorne, Massachusetts



Nathan H. Clark

IN MY teaching of horticultural and related subjects, I have found that repetition is a necessary and effective tool. Usually, only a small percentage of a class will grasp a new idea or be able to perform a new job the first time. Many of them will hesitate to give an indication that they do not understand. By using several different visual aids, I am able to hold the interest of all students, avoid monotony and put my topic over in the shortest length of time.

Like many other things, learning that comes easily to students is the least appreciated and less likely to become permanently fixed in their minds. Learning processes that require effort on the part of the students are more appreciated and the most effective in making lasting impressions. Therefore, my teaching program includes the use of visual aids that require student participation.

For example, in the winter when students are taught how to propagate carnations, the entire growing cycle of the crop is also discussed. They are shown benches of plants in production. They see the side growth on these plants, remove them and root these to start a new crop for the coming year. It is explained that the mature carnations were "benched" the previous July and will remain until the following June when the students will be on supervised farming programs. Some students will be able to form a mental picture of the crop cycle, but not many. Those who have removed carnations in June and "benched" new plants in July are called upon to relate their experiences. This ties the summer part of the project in with that of the in-school program and more students begin to picture the crop cycle in their

minds. To make sure that all gain a full and clear picture, the Crop Chart shown is used as a final visual aid. At this time the student participation which is so important, takes place for they actually make their own visual aid. Under my supervision they chart the entire crop from beginning to end and prove to themselves that it takes a grower six months to get a new crop ready for "benching" and that carnations occupy greenhouse space at least the greater part of a year and one half.

By using mature, producing plants as one visual aid, side growths for cuttings with which to start a new crop as another aid and a chart to show the entire cycle of the crop, all of my students are able to understand the job being taught and the visual aids become effective.

Preparation and Use—

(Continued from page 78)

When using visual aids we sometimes have a need for presenting charted information between certain slides or photos. In order to do this we have to break away from our routine for the charts and then back to the filmstrips. The agricultural teacher can avoid this confusion by taking his camera and photographing the charts he desires to use, even if he does so with regular plus x film and uses his negative as a slide. However, if regular film is used, the exposure time should be doubled from that which would otherwise be correct.

Everyone agrees that a well organized teaching plan will make use of some type of visual aids. The most common of these aids is photographs, so let us all make a concerted effort to make these photographs contribute to effective teaching rather than distracting from good teaching.

"Men are wise in proportion, not to their experience, but to their capacity for experience."



Picture A



Picture B



Attention centered where desired.



Attention distracted by extraneous material.

CROP CHART

Crop, Carnations			How grown, Bench Crop						For, Cut Flowers			
Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1952												Early Cuttings
1953	Most cuttings taken now		R.C. flats	Flats in frames	Plants in Field		Plants benched			Early	blooms	New crop
1954	Bench New crop growing	plants cont.		to bloom.		Bench Entitled	New crop	benched				

Editorials (Cont'd)

(Continued from page 75)

Let us do well the job we have before taking on more. Nearly every community has a farmer who "farms the whole country side" and does a poor job of it. Let us not follow his example. Let us do well what we were set up to do and then look for more only if we have the time to do it well.

We all want vocational agriculture to grow. Let us make it grow by doing well what we set out to do: to develop in farmers and prospective farmers the abilities necessary for satisfactory farm life.

Do you have difficulty in using

The slide projector in teaching

This may solve some of your problems

WARREN DUNCAN*, Vo-Ag Teacher, Lawrenceburg, Kentucky

THE SLIDE PROJECTOR is a valuable piece of equipment for the teacher of agriculture if properly used. Probably part of the reason why it has not been used more by teachers has been due to the inconvenience in using it.

Difficulties In Using Slides

The idea that the room must be "black-out," which necessitated black-out curtains, plus the disturbance and loss of student interest in the blacking-out process, has caused many teachers to pass up the opportunity of using slides in their teaching. Many times, when slides were used, the teacher planned his lesson so as to show all the slides at one time in the lesson to avoid having to "black-out" the room more than one time. Such an arrangement does not make possible the most effective use of slides in teaching.

Using Slides Effectively

For most effective teaching, slides should be used at various times throughout the lesson. For example, the teacher may have one or more slides that should be used in motivating or causing the problem to emerge. These slides should be used when they are needed. In the same lesson the teacher may have some slides that would assist in analyzing the problem or would bring out an idea or some fact needed in solving the problem. The teacher may also have slides that would summarize the lesson or assist in applying the decisions reached to the farming program of the students. To use these slides at a time other than when they should be used to contribute to the lesson may be worse than not using them at all. If slides are to be used most effectively, they must be used as needed.

Using Mirror and Daylight Screen

Much of the difficulty in being able to use slides effectively can be overcome by such an arrangement as is shown in the cover picture. This arrangement enables the teacher to have the slide projector on his desk near the blackboard. By using the mirror, the projection is reflected to the daylight screen. This enables the teacher to face the pupils, operate the projector, point to any place on the screen or use the blackboard as he directs the discussion. The students can take notes on their discussion, as there is no need for blacking out the room. The picture shown on the cover was made with the light normally used by the students—(no flash—natural light and overhead classroom lights only).

Some people may say that much of the problem can be eliminated by having a student, in the back of the room, operate

the projector. However, the student operating the projector is usually so busy with this operation that he does not profit from the slides.

Suggestions For Projector Setup

There follow some suggestions for setting up the projection equipment as shown in the picture.

1. Place the slide projector on a desk at front of room. (The light from the projector will not bother the student. Note the student sitting directly in front of the projector.)
2. Place a 12 x 12 inch mirror about 4 feet in front of the projector. The top of the mirror should be tilted back about 8 degrees. A frame should be used for holding the mirror.
3. Place the daylight screen about 4 feet behind and slightly to the right of the projector.
4. Place the slide in the projector upside down and with the smooth side of the film forward.
5. Turn projector lamp on and raise the right side of the projector until the image on the screen is horizontal. A small block of the correct thickness will come in handy in keeping the right side of the projector at the desired level.

Slide Carrier

The projector shown in the picture has a slide carrier, holding 30 slides, on the

right side. This enables the teacher to place in the carrier the slides he expects to use; then throughout the lesson a simple twist of the selector knob finds the slide that is to be projected. If the teacher wishes to use a slide in the early part of the lesson and again later, he does not have to do a lot of fumbling to find the correct slide. □

The Cover Picture

The picture was submitted by Warren Duncan of Lawrenceburg, Kentucky, to illustrate his article on the use of Slide Projectors in teaching. (See page 80.) Note the ingenious arrangement by which the projector can be operated by the teacher from his usual position in the classroom. A mirror built into the box on the table reflects the image on to the screen which is set up conveniently for pupil vision and teacher access. No artificial light was required in this situation.

In this picture we see that the blackboard also had been brought into play as a visual aid to supplement or complement other means of instruction in the unit. □

Look for Local Aids—

(Continued from page 77)

if he can turn to a suggested list of aids which have been accumulated he may save much time.

To illustrate, the author has selected two enterprises which are taught in his community and has given a partial index of visual aids he uses. The topics can be listed as enterprises or broken down into jobs.

A Partial List of Local Visual Aids to Use With Various Units of Instruction

Enterprise or Unit	Visual Aid to Use
Dairy	1—Sample of feed common in community.
	2—Sample of pasture and hay plants.
	3—Model buildings used in housing dairy.
	4—Drawings or models of ventilation systems.
	5—Models of feed storage.
	6—Chart of common dairy diseases.
	7—Chart records of herds tested on 12 month basis and give star when monthly testing and records are complete.
	8—Use large chart in room to show production and reasons for increase.
	9—Make annual report of the herd testing program showing herd owner, herd tester, cow years, production, and some data grouping testers of various year experience.
	10—Chart list of dairy improvement practices to be followed this year.
	11—Chart record of a herd in community that has used practices and increased production.
Home Improvement	1—Flannel graph showing a home in the community with various plantings.
	2—Drawing on chalk board of a home before and after landscaping with changes to be made in the next few years.
	3—Plans of homes in community already landscaped.
	4—Bulletins, plans and material available from your state college.
	5—Pictures and characteristics of plants used in landscaping. □

*Editor's Note: Mr. Duncan was awarded the \$50 paid by the *Agricultural Education Magazine* for the outstanding picture selected from the several "Pictures of the Month" contest in Volume 25.

Do you use—

16 mm sound films in teaching

The following do's and don't's will help you

JULIUS W. WILLIAMS, Vo-Ag Instructor, Independence, Mississippi



J. W. Williams

GOOD 16 mm sound films on many agricultural subjects can be borrowed from different film lending libraries.

The motion picture is especially well suited to create an illusion of reality, to stimulate participation on the part of a student, to in-

doc-trinate students in desirable attitudes, and to motivate learning.

The sound film will be useful as a teaching aid, depending upon its scope and detail, in (a) introducing a new subject, (b) giving specific instruction, (c) and review.

If films are to be used in teaching any subject, they should be worked into the teaching plan for the unit to be taught, and used as a teacher's aid and not as a teacher. Often the failure to plan properly for the use of a film in the

over-all teacher plan results in the failure to get the most effective teaching from its use.

For the most effective teaching, there are several "do's" and "don't's" connected with the use of films. A list of each is given below.

DON'T

Don't use film during class time for entertainment.

Don't take class out of the classroom to show film if it can be avoided.

Don't show film you have not previewed.

Don't show film without letting the class know something about what they are expected to learn from it.

Don't have room too hot or poorly ventilated.

Don't wait until film is needed to make arrangements for its use.

DO

Book films thirty (30) days before they are to be used.

Always have a teaching objective before showing film to class.

Plan your film to fit into your teaching plan of the unit being taught.

Preview film before showing.

Study teacher's guide with film when available.

Introduce film to students:

(a) You may briefly discuss film with students to let them know what you expect them to learn from the film.

(b) Let students know the film is a part of the study of the unit, and that they will be tested on it.

Showing film:

(a) Have room at proper temperature with good ventilation.

(b) Check and set up as much of the projectional equipment before hand as possible.

(c) Take up as little time as possible getting film started when the time comes to show film.

(d) Have room adequately blacked out.

After showing film, discuss points to be emphasized in your teaching.

Test students for mastery of information.

Re-show film if needed.

Have students put the new learning into practice. □

Have you tried—

Prepared slides as a teaching aid

They have proved to be an advantage to

MICHAEL J. RICCI, Vo-Ag Instructor, Thompsonville, Conn.



Michael J. Ricci

AS a student, I always appreciated and recognized the value of audio-visual aids as contributing to easier learning. As a teacher, I have become more and more impressed with the use of audio-visual aids toward more effective teaching.

It must be recognized that the kinds of audio-visual aids available to the Vo-Ag instructor are many and varied. No one audio-visual material is best. For those who are not fully acquainted with the wealth of audio-visual material and the use of it, I would recommend that they consider enrolling in a course in audio-visual aids at some nearby college in order to become better acquainted with the kinds of material available and the use of audio-visual equipment. My remarks will be concerned chiefly with the use of 2" x 2" slides.

Since I purchased a 35 millimeter

camera I have become most enthusiastic over the use of slides as an effective teaching aid; I prefer the color slides to the black and white—students prefer them, too. The chief disadvantage that I have encountered, to date, has been that of expense. Taking pictures is costly for there are many pictures which are discarded.

Advantages

I have found that there is a definite need for obtaining audio-visual materials having to do with the local environment for the following reasons:

1. Audio-visual aids depicting local agricultural practices are not always available.
2. All audio-visual aids are not up to date—the instructor who takes his own pictures can keep his material up to date.
3. The slides will provide a file of past practices and equipment to compare with the new.
4. A history of the work of the department can be maintained.
5. Slides will provide a history of the development of home projects which

can be used to advantage in promoting and developing more effective supervised farming programs.

Other advantages of using slides are:

1. Pictures of charts, graphs, etc., for use as teaching aids can be taken much more easily and quickly with a camera than the effort and time required to copy them by hand.
2. The slides accumulated can provide a source of material to promote the Vo-Ag program in the community.
3. Slides can be an aid for establishing good public relations between the community and school.

Equipment and Use

The choice of equipment can be a major problem to the beginner for there are numerous 35 millimeter cameras to select from. For the beginner, cost will be the deciding factor. Because of the need for taking close-up shots without too much difficulty, I exchanged my first camera for one with interchangeable lenses. Such a camera is more expensive, but I have appreciated its greater versatility in the work I have been doing.

Following are some suggestions as to the preparation and use of slides:

1. Contact experienced photographers for helpful information and guidance; read literature on the technique of taking pictures.
2. Practice taking pictures with black and white films before using color film—it is less expensive.

(Continued on page 85)

Are you faced with the problem of—

Filing Reference materials

DUANE L. BLAKE, Vo-Ag Instructor, Spencer, Iowa



Duane L. Blake

ONE of the most difficult and tedious assignments that comes to the vocational agriculture instructor is getting an effective, useful and efficient filing system set up in the department. The task can become time consuming and non-rewarding. How-

ever an organized system can be adopted and, above all, maintained as you teach. With such a system set up in the department it becomes easy to find all of the material available for specific problems at a moment's notice.

Rather than try to give a complete detailed outline of all the information available on the subject, perhaps the most helpful information I can give would be a few tips that I have developed and put into use during my four years of teaching.

The Core of the Problem

One of the first things to consider when starting a system is a uniform code or number system applied to the entire outline of units that may be covered in four years of vocational agriculture. This code numbering system should then be applied to all types of reference materials such as bulletins, leaflets, books, film strips and charts.

Space will not permit all of the sub-headings that I have used in my system. Several unit numbers were purposely left out in case I want to add a unit later. It is easy to remember that units 1-10 inclusive are animal husbandry; 11 to 30 incl. farm shop; 31-44 crops; 45-50 soils; and 51-65 farm management. The following is a list of the units I am using with sub-unit headings listed only for two units.

Example of a Numbered Classification

1. Animal Husbandry General
2. Dairy
 - a. Selecting dairy breeding stock
 - b. Constructive dairy breeding
 - c. Feeding dairy cows
 - d. Winter feeding dairy cows
 - e. Judging dairy cows
 - f. Housing dairy herd
 - g. Pastures for dairy herd
 - h. Raising dairy calves
 - i. Fitting and showing dairy cattle
 - j. Keeping dairy records
 - k. Mastitis of dairy cattle
 - l. Producing quality milk
 - m. Marketing dairy products
 - n. Feed thyro protein?
 - o. Milk Fever in dairy cows
 - p. Testing milk for butterfat
3. Swine
 - a. Selecting breeding stock
 - b. Constructive hog breeding
 - c. Care & Feeding of brood sows & boar

- d. Hog lot equipment & housing
- e. Farrowing time
- f. How to save pigs
- g. APF and antibiotics for swine
- h. Lactation period
- i. Feeding growing pigs
- j. Castrating pigs
- k. Swine diseases
- l. Hog lice
- m. Hog mange
- n. Internal parasites
- o. Swine pastures
- p. Fitting & showing hogs
- q. Marketing hogs
- r. Swine herd records
- s. Swine production on the home farm
- t. Plan for production—home farm
- u. Judging swine
4. Beef
5. Sheep
6. Poultry
7. Horses

(Space is left here for additional units if needed)
11. Farm Shop General
12. Farm Carpentry
13. Tool Conditioning
14. Forging
15. Soldering
16. Glazing
17. Farm Plumbing
18. Farm Electricity
19. Rope Work
20. Painting and Insulation
21. Machinery Repair
22. Oxa-Acetylene Welding
23. Arc Welding
24. Concrete
25. Farm Safety
26. Demonstrations

(Space)
31. Crops General
32. Corn
33. Small Grains
34. Soybeans
35. Forage Crops
36. Hay and Silage
37. Pastures
38. Rotations
39. Weeds
40. Home Gardens
41. Home Orchard

(Space)
45. Soils General
46. Fertilizers
47. Soil and Water Conservation

(Space)
51. Farm Management General
52. Farming as an Occupation
53. Leasing Arrangements
54. Farm Credit
55. Buying a Farm
56. Cropping System
57. Livestock Program
58. Power and Machinery
59. Farm Buildings
60. Farm Labor
61. Production and Marketing
62. Risk and Uncertainty
63. Farm Accounts and Records
64. Income Tax
65. Farm Law and Taxation

Each one of the above unit headings is designated by metal tab file dividers with the unit number and sub-unit title typed on yellow tab paper and glued to folders. A folder is used for each sub-unit.

This is the hub of my reference materials. If I read a magazine article that

I may wish to use later, it is either torn out and dropped in the folder or a note is made of the name and date of the magazine and placed in the sub-unit folder. Other materials are filed in the same manner. Lesson plans are also placed in these folders.

The numbers for each unit as designated above in the hub of reference materials are then used on all books, charts, film strips, bulletins, etc. For example, all of my library books on dairy are marked with a number 2, all of my film strips on dairy are marked with 2, as are all other materials. A listing of these materials may be placed in the sub-unit folder if desired. The library shelves are marked with the unit number and title.

I have placed a master copy of the system on the bulletin board for ready reference.

Bulletins and Leaflets

It is desirable to have a single copy of every bulletin and leaflet for each member of the largest class. This creates a problem because all of the loose leaf materials and bulletins used in a vocational agriculture department vary so in size and shape. I have found that a loose leaf notebook will hold all of the various sizes. Twenty complete sets of the leaflets and bulletins that I desire to use for reference materials on each unit have been bound and indexed in loose leaf notebooks. I have combined several units in each notebook (for example the farm management units are in two sets of 20 notebooks).

The film strips are filed in a cabinet by using the same outline provided above. The cabinet is on casters and holds all of the film strips as well as the projector. My charts are filed in cabinets according to the same outline.

Summary

If a vocational agriculture instructor is going to make efficient use of the tremendous amount of reference materials available and teach around the problems arising from the farming programs he must have a filing system.

I have found that in too many cases within a department each type of reference material is filed by a different method. When an instructor teaches by the problem method he must be able to "place his finger" on all of the reference material immediately.

With the above system I have found that all materials on the sub-unit are readily available in the folder. It is easy to pull out a chart, refer to the bulletins or film strip which is marked the same as the folder with the unit number and sub-unit letter.

The twenty notebooks on each unit or group of units, marked with the unit number, are easy for the student to find and use. No complicated file card system is needed. The notebook lies open, and holds the various sizes of the bulletins and leaflets. If a reprint bulletin is published each student may remove one or two old copies and insert the new, thus keeping the system up-to-date with very little time and effort. □



A confident student teacher, having respect and interest from his agriculture class, presents and discusses technical material in a professional and educational manner.



A student teacher provides individualized instruction in milk testing. Using actual materials and having a worthwhile purpose provides incentive for learning.

All student teachers and their supervising teachers
will profit from reading—

Student teachers . . . on your marks!

GEORGE W. SLEDGE, Graduate Student, Michigan State College

HOW DOES A FORMER supervising teacher in agricultural education reflect on student teaching? Here is a personal version based on experiences and observation with the anticipation that student teachers at the beginning of another school year may profit from others' experiences.

You will soon be experiencing what you would like of your students—learning by doing. Teaching vocational agriculture has much to offer you in satisfaction and happiness; it also demands much of you. What are some of the important things with which the beginner should concern himself? There appear to be some practices, beliefs, and assumptions common to most all student teach-

ers which should be preceded by: Student Teachers—ON YOUR MARKS.

Motivating Students

An assumption often made is that students by their environmental background of farm experiences are already motivated on each new unit; however, their conduct and interest do not always reflect this. If students are not stimulated and motivated sufficiently, teaching is made difficult. Student teachers should not allow themselves to fall in the rut of following routine methods of teaching. Variety and change in methods of presentation motivate and cause greater participation of students. Too often beginners use lecturing as an expedient to

cover subject matter instead of utilizing demonstrations, solving problems, using models, actual materials and other visual aids that have proven merit.

Generally, student teachers have great concern over discipline problems—so Johnnie in Agriculture III pulled Bob's chair from under him while you were writing at the board. Ask yourself, "Why didn't I have each student interested and working on his individual problems and needs?" If students are motivated and interested in units being taught, which have developed from student-teacher planning, the problems of discipline eliminates itself. You must anticipate student reactions and plan in advance accordingly. Remember—idleness is the devil's workshop. So plan, plan and re-plan if necessary.

Using Different Methods

When conducting supervised study periods, don't allow this important phase of your teaching to become an academic study-hall situation. Circulate from student to student, giving aid and advice and motivating them as necessary. Help them in their learning processes, but remember the average student loses in-

(Continued on page 84)



Student teacher, on right, instructing on the home farm. By personal supervision, the student is motivated and interested in developing a good supervised farming program. Classroom teaching, as a result, becomes more functional.



A Future Farmer understands marketing of his livestock better by actually experiencing it. Well-finished animals indicate the student's ability in feeding and management of animals. Student teachers can demonstrate this for themselves.

Student Teachers—

(Continued from page 83)

terest in supervised study which is conducted over too long a period of time. Plan your teaching methods and units so that students have and utilize advantageously 15 to 20 minutes for supervised study. The problem solving technique may serve as a stimulus for your students and should be used whenever it is applicable. There is a tendency for a beginning teacher to ask a question and, after receiving one or two answers, give the correct answer without allowing students to explain how they arrived at their answers. The "why's" and "wherefore's" behind answers often are as important as the final outcomes, because it is through these that understandings and changes in behavior exert themselves.

You may find yourself doing what you have said you never would do—just lecturing and lecturing. Break your ties with this method. Your student teaching is a "try-out" period as well as a personal training period. Consult your supervising teacher and receive his co-operation and advice on trying out new methods of teaching. Observe the techniques of other teachers, supervising teachers and your fellow student teachers and see how they handle students. Strive to develop a consistent educational philosophy. By consistency and confidence in yourself, your students will learn to have confidence in you and to look upon your judgments as mature understandings of their problems. You should also make a mental check of any mannerisms you may have and proceed in earnest to improve in an acceptable manner.

Making Home Farm Visits

When you first arrive in the community make it your goal to visit with each of your students on their home farms. Talk with their parents and receive their cooperation in what the student and you hope to accomplish in the program. You will realize that your best motivation and greatest achievements with your student begin and center around the job you do with him on his home farm. It doesn't take a classroom for you to be able to teach; the tractor seat or the back platform of a combine could easily prove to be a better setting. The point is that you can do effective teaching on the home farm; you can help that Future Farmer find numerous opportunities and needs for school farm mechanics work, or you can help work out a new farming agreement with a *greenhand* and his dad. Try to discover job-needs on the boy's home farm that will improve and strengthen your instructional program in classroom teaching, farm mechanics, supervised farming and Future Farmer work. While you are doing this, you are developing good school-community relationships and better pupil-teacher rapport.

You may become discouraged to find that progress in education is not made quite as swiftly as you had anticipated. Have faith in youth. Teaching to change behavior in a more desirable direction requires effort and time. If that is your objective rather than a salary, you will

grow and develop in proportion to the degree that you help your students work towards this objective.

Our Moral and Legal Responsibility

A student teacher once was overheard talking to a junior student who was interested in constructing some out-door picnic tables to use in the family recreational area. The student commented that he could sell one for \$40.00 when the total cost was just \$18.00. The student teacher jokingly remarked that he could make more profit if he cut the leg materials from some "guy's" farm without his knowing about it. The student teacher, of course, was not serious but the power of suggestion is often under-estimated. We must remember that each of us has a moral and legal responsibility for teaching citizenship, and honesty, as well as technical agriculture.

Remember that high school students lack the experience and educational background that you have, so consider this in light of your expectations of students. On the other hand, don't assume that students are completely unfamiliar with material being taught. Find where their level of understanding is and start from that point in your teaching. Teach to student's needs and interests and reward them for their achievements. Ask yourself, "do I spend time on needless, unnecessary time-consumers and sacrifice more important educational outcomes?" Be sure to have a good understanding of your students, their likes and dislikes, their peculiarities, their interests. Be friendly with them and interested in their problems; yet be firm and professional. You will be remembered for your weaknesses as well as for your strengths.

Developing Yourself and Others

Take advantage of every opportunity to observe other agricultural departments and instructors in conducting classes, field trips, demonstrations, laboratory exercise, etc. Go beyond the minimum requirements set up for your

training period. Don't be a by-stander—help plan and conduct all phases of the total program. Use your initiative in working with the FFA Chapter in working with special committees and Chapter officers. Be prepared for every class and outside responsibility; pooling ignorance with students accomplishes nothing.

During the process of teaching you no doubt will be testing and evaluating students. But be sure that the emphasis is not on testing in the classroom as a substitute for a complete overall process of evaluation. Teachers of vocational agriculture hold unique positions in that they have such a diversity of opportunities to evaluate student progress and understanding. None of these should be overlooked, neither should you overlook the necessity of evaluating yourself. Your evaluation should be continuous and never ending. By such action you manifest the important aspect of the beginning of self improvement.

Don't get discouraged! You have selected a challenging profession. These suggestions presented here are just a few that you will discover along the way. They are presented in the hope that you will "GET SET" for your student teaching experience. Here is hoping that you will be able to say in the end that: "Well, I am not such a bad guy after all." You hold the answer and the way. Now—GO! □

A.V.A. Meets in Chicago

The largest attendance in the history of the A.V.A. is anticipated for the meeting in Chicago, Nov. 23-27.

The Agricultural Section, always well represented in these annual meetings, is expected to draw heavily from the many teachers of the Mid-west for whom this year's Convention is so conveniently located.

Make your plans now to attend.



Prospective teachers in Agricultural Education in California become acquainted with some of the instructional materials used in the department at Ukiah, Calif. Explaining the materials is Charles Cook, (in checkered shirt), director of agriculture in the Ukiah department. Picture furnished by H. H. Burlingham.

Here is advice based on—

Some experience in using visual aids

J. G. MILHOLLAND, Vo-Ag Instructor, Monticello, Arkansas

ALTHOUGH I have made extensive use of visual aids in my five years of teaching experience, they have not been used as effectively as they should have been. A good collection of filmstrips, slides and pictorials has been accumulated in our Vo-Ag department library, but the selections have been chosen in fields of teaching for which I, as a teacher, had particular interest. The visual aids in my library lack variety, and the subject matter, in some cases, is too far out of date.

Aids Must Be Timely

Liberal use has been made of free movie films that are available for agricultural teaching, but frequently they were not on hand at the time they could have been used most effectively. This was because they had not been ordered far enough in advance. Hereafter, when the course of study is made out for the new year, our film movie needs will be anticipated and scheduled far in advance. Then they are more likely to be available when needed, and it will not be necessary to accept substitutions.

With the use of visual aids, one is able to cover far more of the course of study set up for each group and the teaching is more effective. Moreover, students learn faster and remember more.

According to my observation, teaching with visual aids is most effective when:

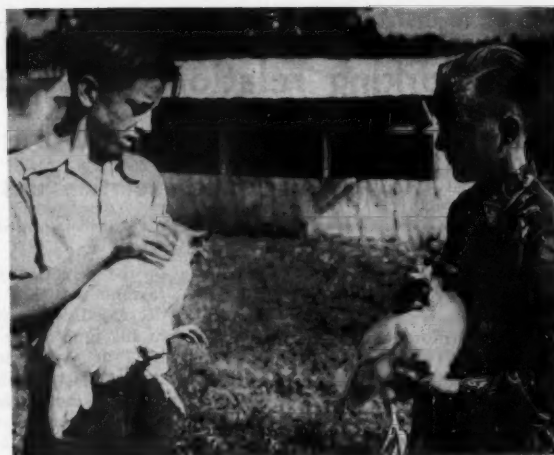
- (1) The class is properly prepared or motivated.
- (2) The visual aid is presented without delay or distraction.
- (3) The students are given an opportunity to apply the knowledge immediately thereafter. Then it is a pleasant experience for both the student and teacher.

Results Are Apparent

In spite of all the mistakes that have been made in the use of visual aids, my teaching has been enriched and more effective with their use. Attesting to this is the fact that within the past two years our FFA boys, taking the written tests for State Farmer degrees, have scored higher than average. Also, those that were awarded scholarships have made above average grades in their agricultural studies in college. The FFA judging teams have made a creditable showing in the fields of forestry, poultry and dairying. A poultry judging team and a dairy products team from our Chapter have earned top honors in the State within the past three years. Three other teams have received district honors. In the training of these teams, filmstrips, slides and pictorials were used extensively to get across the correct mental picture of the "ideal."

Appeal to Various Senses

The fact must be recognized that the success in the presentation of a given lesson depends largely upon the number of senses utilized. Much poor teaching is done because an overwhelming dependence is placed on the printed and spoken word as the almost exclusive medium of teaching in some areas of agriculture. Many teachers have accumulated a good collection of filmstrips, slides and pictorials, but have neglected the use of other effective visual aids, namely: specimens, models, posters, etc.



1949 State Winning FFA Poultry Judging Team (Arkansas). Filmstrips slides and pictorials, as well as the natural object, were used extensively in training this winning poultry judging team.

A specimen is a sample of the real thing. Specimens of diseased plants, insect-infested or diseased fruits and vegetables, and worn out or broken parts of equipment can make strong impressions on the mind of the learner.

Another type of visual aid which teachers have not used extensively is models. A model is a replica of an object. It may be miniature, the exact size, or a blow-up. Notwithstanding that all of the above named visual aids will enrich the learning process, it is believed that the most effective visual aid in teaching agriculture is the natural object in its natural setting.

When teachers obtain models, specimens, posters, slides, filmstrips, etc., for their departments, and make use of all natural objects in their natural setting, I believe they will have a situation where they can do a complete job of teaching vocational agriculture. □

Prepared Slides—

(Continued from page 81)

3. Effective teaching aids can result only after careful planning and preparation as to the kind of pictures needed to meet the objectives of your teaching unit. Plan your pictures before you take them. Decide what you want to show, and then decide on how you want it shown before you take the picture.
4. Use good pictures only. Select them with the aid of a colleague.
5. Arrange your slides in logical sequence before showing.
6. Your talk should be brief and should point up each slide.
7. Don't show too many slides at one sitting. Break up your showing with a discussion or review period.
8. Provide for the comfort of your class. Arrange for good seating and adequate ventilation. Check equipment beforehand to see that it is functioning properly.
9. The slides selected for use should be bound with glass. I use a Leitz Bindomat.
10. Set up a filing system for your slides. □



Exhibits of wood screws. Screws used are actual size. Such exhibits set the stage for learning by association.



A miniature model of a rat-proof corn crib. A model of this type is useful in emphasizing essential points. The correct mental picture can be obtained quickly.

Effective instruction is affected by - -

Working relationships with other high school staff-members

How do you score on relationships identified here?

G. C. CARICO, JR., Graduate Student, Virginia Polytechnic Institute

THERE is no phase of the program of vocational agriculture in which the teacher's surroundings are more important or more dynamic than in the area of working relations with other people. In developing working relationships there is no one plan or procedure which will work in all situations. The plan of action which a teacher of vocational agriculture formulates to solve his problems in this area must necessarily be determined by the situation in which he finds himself. Traditions, prejudices, attitudes, training, and other conditions must be considered carefully if desirable relations are to be developed with any given group.

There are few people who will not agree upon the fact that a teacher of vocational agriculture cannot function effectively if he fails to realize that harmonious relationships are essential in the school. There is hardly a quicker or surer way for him to commit professional suicide for himself and his program than to have friction with the administration or faculty.

The problem of maintaining good working relationships between the teacher of vocational agriculture and the other high-school teachers is a greater problem than is often realized by prospective and inexperienced teachers. It is not to be assumed that all teachers of vocational agriculture have a problem of working relationships with other teachers because they do not. Some do an excellent job of getting along with people while some simply do not.

Relationships Are Two-sided

It is not to be implied that working relationships are a one-sided proposition. The teacher of vocational agriculture cannot be expected to sacrifice his program merely to appease other teachers who do not understand what he is trying to do or what he does. Conversely, the academic teachers consider their work to be important also, and can hardly be expected to neglect their interests in order to keep the teacher of vocational agriculture happy. Both vocational and academic teachers can afford to do their utmost to develop a mutual feeling of understanding and cooperation without neglect of either program. The responsibility of harmonious relationships rests equally upon each of them.

The teacher of vocational agriculture should remember that he is a *teacher*, first and at all times. He is not relieved of his teaching responsibilities when he locks his door to leave the classroom in the afternoon; he is not just another citizen who can go home and forget his job until the next morning. He should not allow himself to become so involved

in the direction of community undertakings that his teaching efficiency is decreased. The criticism, "He spends all of his time doing everything but teaching," does not increase his prestige in the eyes of the faculty. It is the responsibility of the teacher of vocational agriculture to acquaint the principal and other teachers with his program. Nobody whole-heartedly supports something which he does not understand. The academic teacher who understands the objectives, problems, and needs of the program of vocational agriculture is not likely to be the source of friction when his help is needed. The fact that time is needed for preparation for night classes, contests, and on-the-farm-instruction should not be difficult to understand if any effort is made to bring matters into proper focus on a cooperative basis. Understanding can often be promoted by extending invitations to the faculty to attend and participate in departmental activities such as farm meetings, FFA activities, initiations, contests, fairs, supervised farming visits, adult classes, and advisory council meetings. Participation tends to develop understanding and appreciations.

The principal is frequently the central figure in the development of attitudes and is not to be ignored in the picture of harmonious relationships. The attitude which teachers automatically sense in the principal plays no small part in the development of their own attitudes.

Be a Team Member

Remembering that he, himself, is a teacher who is a member of an educational team concerned with promoting the total school program, the teacher of vocational agriculture must become familiar with the objectives and problems of the academic teacher. In his work outside the school he will have ample opportunity to contribute to a general understanding of the school policies and practices on the part of parents. One caution to be observed, however, is to avoid condemning or approving one side in controversial school issues. He should attempt to explain objectives and purposes without criticizing or defending them.

Diplomacy is needed when sides are being taken because the teacher of vocational agriculture has to work with people on both sides of the issue, as well as those who are still undecided.

As a member of the educational team and a member of the school faculty, the teacher of agriculture cannot be a Robinson Crusoe and live in splendid isolation; he must be more than the teacher of agriculture. He will be faced with such bothersome details of the profession as bus duty, faculty meetings, and P.T.A. meetings. While being willing to accept a fair share of the load, he should tactfully avoid excessive duties which seriously interfere with his program. In some instances attendance in faculty meetings may not be compulsory for the teacher of vocational agriculture, but he should always avail himself of this opportunity to clear up any misunderstandings of problems which may arise with fellow teachers. Faculty meetings are excellent as a means of developing mutual understandings when they are conducted in a manner that allows all teachers an opportunity to participate.

Some of the Means

In most schools the teacher of vocational agriculture can be of invaluable assistance in the field of guidance. His knowledge of the background of the majority of the pupils, especially those taking vocational agriculture, should be utilized in guidance problems. Here, again, some tact is advisable. He may know a boy's background and have no trouble at all with him, while other teachers may find him a chronic discipline problem. If the teacher of vocational agriculture approaches the academic teacher with the attitude of, "You just don't know how to handle that boy," he is likely to receive no thanks for his trouble; whereas a simple explanation might work wonders.

The principal should be kept informed of the schedule of activities at all times. Field trips should be scheduled in advance so that all teachers who are concerned can be notified accordingly. The schedule should be arranged to take a minimum amount of class time for other teachers. (Continued on page 87)



Mr. Carrico secured experience in maintaining good working relations at Rural Retreat High School where problems are settled in informal group discussions as participated in here by: Left to right, C. E. Clear, Principal; Miss Kathryn Etter, Librarian; C. M. Vaughan, Jr., Vocational Agriculture; Miss Mary Brown Cassell, History; and Robert Copenhagen, Vocational Agriculture.

If you are looking for variety, motivation and flexibility in your teaching, read . . .

Sand tables are effective teaching aids

GUY E. TIMMONS, Teacher Education, Michigan State College

ONE OF THE MOST versatile and effective teaching aids that can be used in teaching of vocational agriculture is the sand table. You say "kindergarten stuff"? Let it be known that the adaptability of a table appeals to all ages, the 50 year old as well as the 5 year old. It is a "natural" for reproduction of many and varied agricultural situations. Problems in landscaping, building arrangement, erosion and drainage, farm layout—these are but a few typical problems that can be visualized and studied through manipulation and use of a sand table.

Take the problem of landscaping a given student's homestead. The existing features of the homestead can readily be reproduced on the sand table. Through "trial and error" procedure the student and the entire class can manipulate terrain features until desired results are obtained. The sand table can thus serve as a motivation device to stimulate thinking and discussion toward problem-solving without leaving the classroom.

The sand table can be used by individuals, groups or the entire class for problem-solving. It has great value as a device for demonstration work by the instructor.

The "Props" Are Inexpensive

Materials needed for such teaching are simple and inexpensive. Any good mortar sand is suitable. Twigs from deciduous and coniferous trees and shrubs can serve as trees and shrubs or colored household sponges can be cut in various sizes and shapes for this purpose. Paper can be cut to serve as walks, drives, highways and the like. Wooden matches or toothpicks might serve as fences. Green colored sawdust could be used to represent lawns. Models of buildings can be purchased or made from blocks of wood, manila paper or other similar material. Fountain straws can be cut to lengths to represent drain tile; when used with string or thread they can also serve as power and utility lines. A piece of mirror or cellophane can serve to represent a pond, lake or stream. These are but a few ideas to show the type of inexpensive material that might be utilized in visual teaching with the sand table.

A Plan For A Sand Table

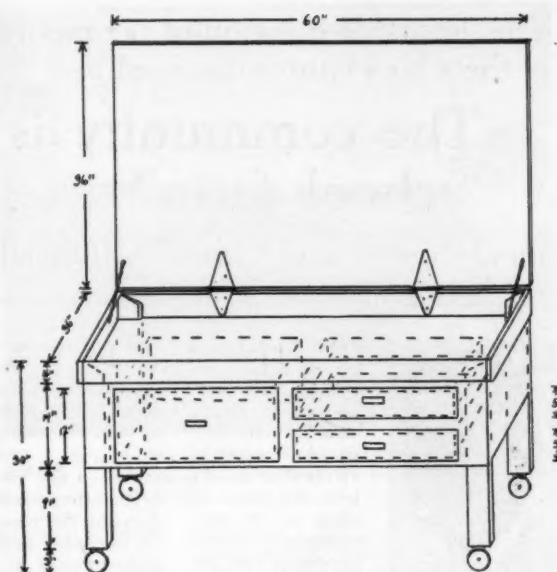
Illustrated is a type of a sand table suitable for classroom use. Drawers are provided in the base in order to store models and materials where they are readily accessible and protected. The table is mounted on casters for mobility. A lid is provided so that the box may be closed and thus the unit becomes a

work table. When opened the lid can serve as a mounting board for charts and other such material. The lid can be divided and hinged, so that it can be folded to provide for work on all four sides. The box may be lined with galvanized sheet metal and a drain pipe provided for use of water and other liquids in demonstrating.

The sand table is interesting, novel, workable and effective. It may be used when actual objects are not suited. It is excellent for giving an overall picture of a situation of large scope. Its usage is flexible and very adaptable to many agricultural situations. In the hands of a teacher with a little ingenuity it has unlimited possibilities.

Below is a list of teaching activities which might further suggest the use of a sand table:

- Contour or strip farming
- Seed germination work
- Labor efficiency
- Crop rotation
- Time and motion studies
- Fire insurance study—building dispersion
- Fencing problems — layout, maintenance, et cetera
- Farm safety factors
- Use of maypole
- Seedling identification work, et cetera
- Run off tests—water retention abilities
- Reclamation work
- Woodlot management
- Irrigation layout
- Farm ponds—lay-out, location, planning, et cetera
- Land leveling—surface modification and the like
- Conservation work—game cover plans, et cetera
- Soil testing sample collection planning



COMBINATION SAND TABLE

Stock—

Top— $\frac{1}{2}$ " Plywood
Box Bottom— $\frac{1}{2}$ " Plywood
Legs—3"
Box Frame—1" Hardwood

Drawers—Facing— $\frac{3}{8}$ " Plywood
6" Strap Hinges
 $2\frac{1}{2}$ " or 3" Casters

Box Lining—Galvanized Sheet Metal (Optional)
Scale 1"—1'

Drawn By G.E.T.

Working Relationships—

(Continued from page 86)

The teacher of vocational agriculture can no more be excused for concentrating on his particular specialty, to the exclusion of other areas of learning, than can the academic teacher. It is his duty to use every opportunity to teach English, history, or mathematics in his vocational agriculture class when the need is evident. Aspiration for and appreciation of scholarship and culture are not limited to any one classroom for their creation and development; they are the responsibilities of all teachers.

In Summary

It can be said that the teacher of vocational agriculture is a member of the faculty, directly responsible to the principal, and a functioning member of the total school staff. He should endeavor to maintain an understanding and cooperative relationship with the rest of the faculty at all times, assuming his share of duties and responsibilities willingly and without complaint. He should remember that he is a *teacher*; a teacher who is interested in giving his pupils the best possible benefits of his training and knowledge, whether it be in vocational agriculture or English, in the classroom or on the street, at work or at play. His working relationships with the faculty and the administration will be an important factor in determining how effectively he functions as an agent of education.

**FFA Anniversary
Featured in November
Issue**

"A good name, like good will, is got by many actions and lost by one."
LORD JEFFREY.

The debatable question of the merits of the school farm is discussed in—

The community is your "school farm"

Some "pro's" and "con's" advanced by

ELWOOD M. JUERGENSEN, Teacher Education, University of California



E. M. Juergensen

THE ROLE of a school farm has perhaps been misunderstood more than any other factor in vocational agriculture. At least the range of ideas as to what constitutes a school laboratory and the degree to which these facilities should be supplied, in addition to the question of how they should be utilized, is wide indeed. To many it means empirically what it implies, that is, a farm set aside and operated by the school as a farm laboratory. Others think of school farms only as the home project of the students enrolled in classes that particular year.

The importance of having physical facilities in a vocational subject cannot be over-emphasized if we are to teach on a truly vocational basis. In fact, the very basis as to whether Vo-Ag is vocational or not lies perhaps in the supervised farming program of individual students enrolled in vocational agriculture. Since many students do not possess adequate facilities for obtaining the necessary training in vocational agriculture, it is natural for the school and community to want to supply them. Thus, in many cases a teacher of vocational agriculture is going to have to decide whether or not his department should own and operate a school farm. This problem is a recurrent one so that new teachers in particular should examine carefully all facts before making a decision. Minnesota, for example, once had in its state plan the stipulation that every department of vocational agriculture must have facilities that might be considered a school farm. At the present time California has a considerable number of school farms operated by the department of vocational agriculture for the purpose of providing observation, experience, and practice for students in agriculture. Out of 240 Departments around 10 per cent of them have some kind of farm laboratory facilities ranging from a few acres to some of a hundred or more.

At first glance the idea of a school farm seems to be a natural and feasible method of training students of vocational agriculture who have limited opportunities at home. However, there are many ramifications and problems initiated whenever such a solution is applied. Another solution to the problem and one

that is utilized in many schools, perhaps unconsciously, is to mobilize and utilize the entire community as your school farm rather than set up a laboratory to meet the problem.

Factors To Consider

The intent of this discussion is not to discredit the present school farms that are operating smoothly and meeting the apparent need in some communities. It is the intent, however, to promote keen evaluation by those who are operating school farms and not getting the results they expect as well as by teachers contemplating the addition of a school farm in the future. With this thought in mind, let us review some of the values obtained by use of school farms and at the same time consider the possibilities of community resources as a means of providing learning experiences.

First, consider the case where a department of vocational agriculture purchases a piece of ground in a community with the idea of providing training and experience for the students in the department. This, of course, can be the only logical reason for such a step, as the idea of having a school farm to produce revenue is entirely out of line in keeping with our views of public education. Yet if a school farm is to teach by example to students, it seems reasonable to expect it to show a profit.

The primary reason for vocational education is to properly educate pupils. If we wish to evaluate the effectiveness of this training it is reasonable to use the ability and performance of its graduates as the real measure of success. The fact that a school farm is neat, attractive, has healthy crops, prize-winning livestock, and better-than-average facilities is no guarantee or, in some cases, even evidence that its trainees are developing their abilities. It is good public relations and a better learning environment if the school farm gives a satisfactory outward appearance but not a final measure of the student's ability anymore than a display of well built articles constructed in a shop and placed before the public during open house week is conclusive evidence that students are being properly trained.

Question of Financial Outcomes

If a school farm is located in a good farming area and is of considerable size, there is a good possibility that it may return a financial profit that could become a point of irritation rather than an asset should this income be lowered or removed due to changing prices, crop failure, etc. An understanding

school board can easily take such reverses in stride, but it could become a serious problem if the function of a school farm is not thoroughly understood by the board and community.

To some extent school farms fit nicely into a teaching program because of the fact that matters dealing with expenses, income, and the like can be freely discussed. This information because of diplomatic reasons may be withheld from students who are visiting an actual farming operation.

Regardless of facts, some people assume the school farm is in competition with them, as it produces similar crops and competes on the open market for disposal of these products. During good times and periods of high prices this factor would not be as important as during periods of business recessions. In addition, they point out that such farms pay no taxes and yet are supported from tax funds. There is also the tendency to criticize regardless of facts the appearance of school farms should they become the least bit weedy, unpainted or shoddy looking. Most folks assume that the agriculture teacher, because of his training and background, should maintain a model farm.

Attitudes of Pupils

Perhaps the most significant factor lies in the effect on students themselves. In the first place, there is a tendency for students not to be as impressed by practices on the school farm because students know it does not have to pay in comparison with the farmer who must make his living as a result of his operations. Secondly, in learning methods and skills the point of diminishing returns is often reached long before the job is completed. This may or may not be true, yet students soon acquire the feeling they are being exploited at which time the learning process is certainly inhibited. Many school farms overcome this by hired help taking over and completing jobs once students have demonstrated enough skill so that additional practice is unnecessary. At any rate, this problem necessitates an adequate budget or else "saddling" the agriculture teacher on weekends, holidays, and during the summer period to keep the farm operating smoothly.

Using the Whole Community

As another way of providing demonstration and practice facilities, let us consider the practice of completely utilizing all the resources of a community as a training laboratory for the students in vocational agriculture. It goes without saying, of course, that many successful teachers of vocational agriculture are now doing exactly as stated. Many of them, however, have not thought of their total farm community with its many enterprises as a school laboratory, nor have completely examined the possibilities available to an agriculture department in a rural community.

To begin with, practice obtained on the various farms in the area, especially the good farms, have an atmosphere of authority and trueness to life that is respected by students participating in the

(Continued on page 89)

Here is evidence of the - -

Favorable learning opportunity on a school farm as furnished by

CALVIN H. CRANDALL, Vo-Ag Instructor, Weiser, Idaho

THE Weiser department of vocational agriculture operates a fifty acre school farm under the direction of its two teachers. The Weiser FFA Chapter has sixty-two members all of whom participate in the activities of the farm.

One example of how the farm contributes to the teaching-learning process at Weiser is found in the swine feeding demonstrations which have been in process for the past three years. The past year's operation, just completed, involved 42 pigs selected from six litters produced on the farm. They were divided into six pens and carefully weighed. Each pen was fed the same grain mixture in the same manner but varied otherwise as to supplement and the use of antibiotics. The same care was given each pen and all other conditions were held as nearly uniform as possible.

In addition to the experience and information obtained by the pupils in the Vo-Ag department, a field-day for par-

ents and other members of the community was held near the end of the feeding period. Approximately one hundred and fifty people attended. Complete information regarding the experiment is furnished to each vocational agriculture department in Idaho and is sent elsewhere upon request.

The pupils in the Weiser department assisted with feed mixing, weighing feed and pigs, recording information and keeping records and information on the developments. A follow-up study on the best system of marketing the pigs is being carried out as the hogs reach market weights.

The school farm has provided an excellent means of bringing about learning through doing. □



Two pupils in the Weiser, Idaho, Vo-Ag department inspect one of the pigs in the feeding experiment on the school farm and check the records of progress.

ture plays is first to be sure of complete understanding between parent, boy, and what he wants the class shown and then he is able to remain in the background and supervise.

Public Relations Value

Perhaps the most important factor in utilizing the total community as a school farm lies in the implication made in the preceding paragraph. That is, one of proper public relations. By using many farms to provide demonstration and teaching facilities, the teacher of vocational agriculture has a most advantageous position in his desire to get and maintain good community ties. Lack of knowledge as to exactly what goes on in an agriculture department is often the only reason people are not in more sympathy with the agriculture program. Each farm visited can become a potential booster for the department and each farmer feels he has a link with the department and is indirectly responsible to some degree for its success or failure. Every farmer who knows what goes on in an agriculture department can express his views freely so that the teacher has the advantage of wide community council. Classroom teaching also is given a real impetus as instructors frequently can refer to practices observed outside the class that are not contrived incidents but actual experiences all students have observed together.

In spite of the advantages of a community farm, we must recognize there is, of course, a very definite place for a school farm in some communities. Agriculture departments located in suburban areas or in localities that were once good farming areas but are now urban due to the large growth of cities, may improve their facilities immensely by utilizing a school farm. Many students in such high schools will become allied with agriculture and are in need of agricultural training. In some communities a school farm properly established and operated may be the most logical answer.

However, the acquisition of a school farm with its relationship and purpose to teaching should be carefully weighed and evaluated by present and prospec-

(Continued on page 93)

The Community Is—

(Continued from page 88)

program. Students realize that when they go on a farm to view a demonstration, they are seeing a segment of a program that must earn a living for that particular farmer. Generally, if students participate in a learning experience on a farm during class time, it is not necessary for them to complete the job after they have mastered that skill, nor is it necessary for the teacher to return after school or on weekends to see that a crop gets planted or to finish whatever operation is started. In addition, when the class arrives, things necessary for a demonstration are generally ready.

The agriculture department, in using community facilities for practice, is not placed in a gold-fish bowl situation that often times is not fair to the department, yet the department must suffer the consequences of unfavorable criticism. In other words, teachers can utilize demonstration procedures without feeling each time that the entire eyes of a community are on them, sometimes to overemphasize the importance of a minor error. To a certain extent, the agriculture department is under the protection of a farmer and his farm when teaching is conducted on that farm. True, this can backfire, sometimes worse on an individual farm than on a school farm, but most good farms will be using approved practices and will see to it that the demonstration on their farm is up to standards.

Variety of Learning Situations

Most communities have a large number of different commercial enterprises.

If all or a major portion of these are to be taught, it is difficult and in some cases impossible to get facilities to teach each important enterprise on a school farm. Some place among the farms in a community an excellent laboratory exists to teach skills and abilities for every enterprise which should be taught. Student backgrounds, interests, and opportunities for placement change from year to year so that teaching programs must continually be evaluated and altered to serve the need. This shift can easily be made simply by using new contacts throughout the community, but would be a more difficult problem on one farm.

The fact that different farms are utilized as laboratories makes for high student interest since boys are always anxious to see new methods and ways in which their neighbors are operating. Thus the monotony of always returning to the same facilities is eliminated and the anticipation of new scenes keeps interest at a high pitch.

One technique of teaching, all too frequently ignored, is the use of students within classes to arrange for demonstrations and serve as teachers. Each boy on his home farm has some practice of value to the other members of the class. Students enjoy teaching each other and showing off the good things about their home farm. Not only is this good education, but a time saver to the teacher as well. This is particularly true if young farmers can be utilized, since many of them, due to previous schooling, do an excellent job of teaching a class and sometimes a phone call is the only action necessary by the Ag teacher. The only part the teacher of vocational agricul-

Planning a unit of instruction

HAROLD R. CUSHMAN, Teacher Education, Burlington, Vermont



Harold R. Cushman

IT has long been a conviction of mine that what teachers of agriculture most need is an adaptable form for planning units of instruction which will meet their needs, both as beginning teachers and later as experienced pedagogs. Such a form should, of course,

be consistent with accepted educational and psychological principles. It should provide opportunity for beginning teachers to plan in fairly great detail. It should also be sufficiently flexible to meet the needs of experienced teachers who are presently using the backs of envelopes. There is no doubt in my mind that the absence of such a system has caused many teachers to desert the sound educational principles which they were taught in favor of more expedient, and often less sound, methods of planning.

Why was the Old System So Complicated?

Most of us were "bottle fed" on the now outmoded ideas of Hebartian Psychology which envisioned all learning as taking place step by step through preparation, presentation, practice and testing. According to Herbart, the motivation of students was accomplished by a preparation step in which the students were, in one setting, "warmed up" for the whole unit of instruction (which might possibly last for several weeks). Having everyone ready, the teacher moved on in succeeding lessons to presenting the knowledge to be assimilated in a presentation step. Practice by students was not allowed to mingle with this presentation, but was reserved for a special practice step. A testing step wound up the unit and was a sort of climax, or end, for which students were to be ever preparing during the preceding parts of the unit.

Some Reasons for the Decline in Acceptance of Herbart's Ideas

1. Modern psychological research has shown conclusively that learners need to be motivated at every turn in the road. Motivation is a continuous process if learning is to be most effective. Once for a unit (which often means once every two weeks) is not sufficient.
2. Progressive educators, especially those in the vocational fields, no longer view the acquisition of knowledge as the end of education. Instead, the changing of behavior, as evidenced by the development of skills and abilities, understandings, interests, ideals, and attitudes have proven to be a more acceptable end in education. Lancelot's book "Permanent Learning" sums up this school of thought in creditable form.
3. Experience has shown that it is more profitable to mingle presentation and practice so that practice takes place before the individual has had a chance to forget what was presented.

4. Testing in vocational work has tended to move from paper and pencil tests and immediate performance tests toward tests which measure how great a change in behavior the teacher has effected. This necessitates measuring behavior changes in terms of how the students plan to perform and do perform in home farm situations and in supervised farming program situations. Such measurement must usually be delayed beyond the unit itself and has decreased the significance of Herbart's testing step as an integral part of a plan for a unit.

Essential Features of a Plan

Essential agreement regarding the main features of an adequate plan for a unit of instruction has been reached in the North Atlantic Regional Critic Teachers' Conferences. This group of critic teachers, teacher trainers, and supervisors, working with representatives of the U. S. Office, have concluded that the following elements should be included:

1. The title and classification of the lesson
2. Description of the setting of the unit (including coordination with supervised farming programs) as it relates to individual pupils
3. Statement of specific purposes in teaching the unit
4. Analysis and organization of content
5. Statement of selected procedures
6. List of instructional materials selected

□

Using the Field Trip

JACK B. CLINCH, Vo-Ag Instructor, Selbyville, Delaware



Jack B. Clinch

AS Vo-Ag teachers we are well aware of the great potential from "out-of-the-classroom" teaching. The field trip is well established as a good teaching procedure. One of our purposes is to sell an idea. We know our boys will grasp it more firmly if they go, see, and do. An effective field trip is well planned by the teacher who goes first to survey the situation. Boys also should participate in planning so they will know why they are going and what they should see and learn. Notes are usually taken by the boys and these notes used as a basis for a write-up of the trip. Class discussion of the trip is most appropriate.

Our broiler industry here on the Delmarva Peninsula is very effectively selling chickens through a newly formed poultry auction known as the Eastern Shore Poultry Growers Exchange. It's a natural for our Vo-Ag boys to learn more about one of our leading farm enterprises through a well planned field trip. Most of our Vo-Ag broiler projects

Sasman Honored



Louis M. Sasman

LOUIS M. SASMAN, Chief of Agricultural Education for the Wisconsin State Board of Vocational and Adult Education, was given recognition on the completion of thirty years of service to vocational agriculture as state supervisor by the Wisconsin Association of Vocational Agricultural Instructors at their annual banquet in Madison on June 24.

A check of one hundred dollars was presented to Mr. Sasman by the association president, W. C. Foth, as part of the recognition ceremony.

Mr. Sasman taught vocational agriculture for five years in Wisconsin and New York previous to becoming state supervisor. He holds Bachelor of Science and Master of Science degrees from the University of Wisconsin.

During Sasman's tenure as supervisor the program of vocational agriculture in Wisconsin has grown from less than sixty departments to two hundred and eighty-six. Young farmer and adult classes have grown from a small beginning to an enrollment of over seven thousand. The extensive FFA program in the state has developed under his guidance as adviser.

Mr. Sasman has served vocational education on a national basis through participation in the work of various committees and as Vice President for Agriculture in the American Vocational Association. He has been awarded the American Farmer Degree by the National FFA Association and is a life member of the American Vocational Association. (Item furnished by D. C. Aebischer, Teacher Education, Wisconsin.) □

are marketed through this medium and we have taken full advantage of this opportunity for learning by taking classes there to learn first hand, following the previously mentioned procedures. Our junior-senior farm management class has visited enough times to know the sales procedure, the officers of the organization, and even to understand the chant of the auctioneer. They have written up all the data and through class discussions have established the facts and methods of selling through the auction. We receive daily sale prices and have plotted monthly charts showing high and low daily prices paid.

The only soybean processing plant on the eastern shore is located at Millsboro, New Jersey. It is revealing to the boys to see what happens to the beans they grow and to be told what varieties they should grow for best returns and how foreign material in the beans cuts their price.

Do you want to make your class more interesting? Why not look around? There may be opportunities in your community of the sort mentioned above which you have overlooked just because you have taken them for granted. □

The FFA speaks for itself

A rebuttal to the question—"FFA—Vehicle or wheel?"

DON ERICKSON, Vo-Ag Instructor, Rugby, North Dakota

I read with a great deal of interest the recent article entitled "FFA—Vehicle or wheel?" and, with all due respect to the author, it would seem that there is another side to this controversy. Our FFA program has come under considerable fire from within the ranks of Agricultural Education people in the past year or so. Undoubtedly some of this criticism is justified, but it seems to me that a lot of it is just another instance of "Getting on the Bandwagon." Right now it seems to be popular to find fault with the FFA, particularly in regard to the contest program. Well, as an adviser of a Gold Emblem Chapter, I've had a chance to see the other side of the picture.

If we are able to agree on a couple of basic precepts, we may be able to bring the whole picture into a little better focus. It is my belief that most of our people concur with the idea that our two primary jobs are:

1. To get our boys established in farming.
2. To "Develop competent and aggressive rural and agricultural leadership."

Vocational Agriculture existed for eleven years or so before the advent of the FFA. During those years a need for some sort of an organization for farm boys became obvious. Still a young organization, the FFA became a powerful ally of the day school teaching program, designed to achieve the primary goals of establishment in farming and the development of leadership.

FFA as a Stimulus

I was amazed to find the author of the article in question criticizing the FFA for taking over in the field of supervised farming. Let's consider this for a moment. We want our boys to get established in farming. The National and State Chapter Contests offer stimulus to the boys to improve their farming programs. Examine the farming programs of the average boy from the average Chapter. Compare this to the program of the average boy from one of our top ranking Chapters. In our own instance, our boys have built their programs to a place where establishment in farming stops being theoretical and actually happens.

Last year our average member grossed more than \$1400.00 from his farming program and furnished complete verification for all earnings listed. Our high individual earned more than \$17,000.00. The State and American Farmer Degree offer added stimulus toward improved farming programs. I detected a tone of resentment toward the FFA for "taking credit" for the supervised farming program. May I submit, in all humility, this question: What possible difference can

it make as to who or what gets the credit? Vocational Agriculture and the FFA supplement each other, and both do a needed and worthwhile job.

It must be remembered that those of us out in the various local communities are both Vocational Agriculture instructors and FFA advisers. The FFA, to me, is the catalyst that can take a farm boy, bring him into contact with the day school teaching program, and produce a competent and aggressive future farm leader, well on his way toward establishment in farming. If this is an unworthy accomplishment, then many of us are badly mistaken in our beliefs.

Competition Needed

So our contests are "out of line" and we are "drifting from our original objectives." Yes, we are drifting, all right. We are in danger of drifting into a non-competitive, non-aggressive way of thinking that will rob the FFA and our boys of the enthusiasm and fire that they need. Let us be realistic about this. We live in a competitive world. Whether we like it or not, that is the way the world is run. The FFA program is broad enough to offer every boy in every Chapter a chance to excel, to find a place in the sun. Now, if the contests are properly conceived and executed, the over all effect should be very good.

I should like to quote the General Policies and Regulations Governing FFA and Vocational Agriculture Contests and Awards in North Dakota:

I. ACTIVITIES SHALL BE THOSE WHICH WILL:

- a. Motivate boys in their study of vocational agriculture and stimulate their interest in the FFA.
- b. Help interest members in becoming satisfactorily established in farming and help them to develop the abilities, skills and qualities ordinarily needed by a successful farmer.
- c. Contribute to the realization of the objectives of vocational agriculture and the aims and purposes of the FFA.
- d. Implement the teaching program and be a natural outgrowth of the programs of local departments of vocational agriculture.

No contest has much value in itself. It simply serves as the motivation. For example, here at Rugby all 63 in-school members take part in the annual FFA Public Speaking Contest. All boys get the same training and the ultimate winner represents us in the District Contest. Of course, it would be easier to pick a boy at the beginning of the year, work with him alone, and greatly increase your chances of developing a winner. If things like that are being done by some

Chapters, then I believe they are way out of line.

Contests Motivate

We have even added contests in our state when we felt that there was a need to do a better job in some phase of the vocational agriculture program. Last year a Supervised Farming Record Book Contest was started. Each Chapter submits the names of all of its members, excluding the first year boys. At a given date the Chapter receives a notice that the books of five or more boys, selected at random, are to be mailed in to be judged. How do we prepare for such a contest? By doing a better job of teaching record keeping to all of our boys. Now I suppose some purist will say that record keeping is vocational agriculture and the contest should not be listed under the FFA! About that, I neither know nor care. This I do know: our members are keeping better records than they ever kept before.

No, I don't think we are contest happy. I do not believe that the FFA has usurped the rightful place of the Vocational Agriculture program. I resent accusations that our leadership wastes time on such "unimportant" details as member conduct at State and National meetings. Our job is to train leaders and to give status to agriculture as an occupation. We do spend time teaching good conduct at conventions. We also spend time in teaching good conduct right in our home Chapters. Is that wrong? As Americans, aren't we interested in developing good citizens as well as good farmers?

Pride in Farming Created

Agriculture, as an occupation, has not always been either respectable or respected. Our farm boys need to grow up with pride in their chosen work. If it has accomplished nothing else, the FFA has given them this pride. The twenty five years of achievement deserve something better than a "kicking around." The entire program should not be made to suffer from the plaintive wails of a limited number of Chapter advisers—advisers who are unwilling to spend the time and energy to develop an effective FFA program in their own Chapters. Even a minority of such advisers can and do make enough noise to sound like a "need for a change." We tend to forget that the instructors who are in general accord with the program don't hit the papers. They haven't anything to cry about.

Our job, I repeat, is to get competent and aggressive young leaders established in farming. Eleven years of solo existence pretty well proved that the vocational agriculture program was unable to do the job alone. Twenty five years of Future Farmer work speaks for itself. Compare today's farming programs and today's farm boys with those of a generation ago. Now, who cares which of the areas gets the credit: vocational agriculture or the FFA. The prime consideration is to do the job and do it well. Speaking as one instructor, I think we are meeting the challenge. □

The Influence of Color—

(Continued from page 76)

popularity of green versus the popularity of all other colors combined. It was found that farmers differed significantly ($\chi^2 = 11.66$) from nonfarmers in their color choices. Whereas the farmers preferred green to all other colors combined in the ratio of about 1 to 2, the nonfarmers preferred green to all other colors in the ratio of about 2 to 1.

Table 1—Color Preferences of Farmers and Non-Farmers

Color	Farmer		Nonfarmer		Total	
	No.	%	No.	%	No.	%
Green	40	34.2	19	70.4	59	41.0
Red	25	21.4	4	14.8	29	20.1
Blue	24	20.5	2	7.4	23	16.0
Black	15	12.8	1	3.7	19	13.2
Brown	13	11.1	1	3.7	14	9.7
Total	117	100.0	27	100.0	144	100.0

The data in Table 1 obtained from the 117 farmers were then analyzed separately. It was interesting to note that their choice of color differed considerably from that to be expected if all colors were equally preferred. If the latter condition were true, slightly more than 23 farmers would have selected each color. The actual frequencies differed significantly ($\chi^2 = 19.55$) from those of a population in which opinions were equally divided.

Since the foregoing test yielded a significant chi-square value, additional tests of significance were made with the former data in which every color was individually compared with every other color, and with all other colors combined. The results are summarized in Table 2.

Table 2—Chi-Square Values Resulting From the Comparisons of the Color Preferences of Farmers

Color	All Others				
	Red	Blue	Black	Brown	Others
Green	3.46	4.00*	11.38*	13.76*	14.72*
Red		0.02	2.50	3.78	0.14
Blue			2.08	3.28	0.02
Black				0.14	3.77
Brown					5.78*

*Significant at the 5% level.

It should be noted that these additional tests yielded only tentative inferences which should be investigated by means of new experimental designs using new samples. Nevertheless, the evidence supported the contention that the farmers preferred green to all other colors, although its superiority over red was not clearly demonstrated. On the other hand, with the possible exception of brown which attracted the fewest choices, there was little evidence that the popularity of the remaining colors differed by more than chance variation.

The 117 farmers were arranged according to type as shown in Table 3. The color preferences of the farmers, when classified according to type, were tabulated and are summarized in Table 4. Because of the small number of cases present for certain types of farmers and

Table 3—Types of Farmers

Type of Farmer	No.	Per Cent
Dairy	86	73.5
General	9	7.7
Beef	7	6.0
Fruit	4	3.4
Poultry	4	3.4
Cash Crop	4	3.4
Miscellaneous	3	2.6
Total	117	100.0

correspondingly smaller number of selections of colors such as black and brown, it was necessary to eliminate the black and brown colors in order to test the hypothesis that color selection was not influenced by the type of farmer status. The resulting chi-square value was 1.46, which is nonsignificant. Therefore, insufficient evidence was found to support the contention that dairy farmers differ significantly from all other types of farmers in their choice of the leaflet colors of green, red, and blue.

Table 4—Color Preferences of Dairy and Non-Dairy Farmers

Color	Dairy		All Others		Total	
	No.	%	No.	%	No.	%
Green	29	33.7	11	35.5	40	34.2
Red	16	18.6	9	29.0	25	21.4
Blue	19	22.1	5	16.1	24	20.5
Black	13	15.1	2	6.5	15	12.8
Brown	9	10.5	4	12.9	13	11.1
Total	86	100.0	31	100.0	117	100.0

Tabulation of the information pertaining to the presence or absence of a farmer's name on the leaflet mailing list, and, if present, the tendency of the farmer to read practically all of them, revealed that, with one exception, every farmer on the mailing list claimed to be a regular reader. Consequently, the two classifications were merged into a single reader—nonreader classification. The hypothesis was then tested that reader and nonreader farmers did not differ in color choices with respect to the leaflet. The hypothesis could not be rejected since the resulting chi-square value was 4.35 which is nonsignificant. Because of the smaller number of farmers selecting the brown color, it was not possible to include this color in the foregoing test.

Conclusions

As simple as the design of this pilot study was, it did offer an insight into the basic problem as to whether color preferences existed in such printed matter as Extension Service leaflets. Evidence was found that, in the case of the "Hits for '53" leaflet, green tended to be the most popular color. Nevertheless, this color, printed on white, may not necessarily be superior in terms of such factors as ease of reading since this report was confined exclusively to eye appeal.

These results were not as inclusive as one might hope. In the first place, the nature of the material involved may have easily influenced the color selection. The mere fact that the agricultural leaflet pertains to field crops suggests green. However, the fact that the cover exposed

displayed a baseball player rather than a farm scene may well have nullified at least a part of this tendency. On the other hand, the reading public will undoubtedly find unattractive such cover designs as a blue tomato, a purple ear of corn, or a green beef steak. Obviously, the popularity of the green should not be generalized to leaflets devoted to other subjects and utilizing other cover designs.

Secondly, the results of this research may possibly be dependent upon the sequence of the colors as viewed by the subject, even though that sequence was random. The fact that black always followed green, for example, may have affected the popularity of each in either direction. Furthermore, the two-hour rotation scheme, while helpful, would operate with maximum effectiveness only if the same number of subjects visited the booth during each two-hour period, and each color appeared in each position the same number of times. Both of these conditions were approximately met in this experiment.

Lastly, the conclusions derived from the data were restricted by the design itself in that the subject gave one choice only, rather than ranking the colors in order of attractiveness, rating them on a rating scale, or responding to a paired comparison scheme. All three methods would very likely yield more sensitive results. However, the third seems particularly helpful since it insures a comparison of every color with every other color under comparable conditions.

Perhaps the most interesting aspect of this research in the eyes of the vocational agriculture instructor as he considers his visual aids program for out-of-school groups, is the fact that the farmers favored a color other than the traditional black on white. Even though the most preferred color for a particular poster or chart may not be known, the use of a color other than black should be given serious consideration, as long as that color is not incongruous with the theme.

References

1. Garth, T. R., "Race Psychology" New York: McGraw-Hill Book Company, 1931.
2. Garth, T. R., and Porter, E. P., "The Color Preferences of 1032 Young Children." *American Journal of Psychology* 46:448-51. 1934.
3. Michaels, G. M., "Color Preferences According to Age." *American Journal of Psychology* 35:79-87. 1924.
4. Shen, N., "Color Preferences of 1368 Chinese Students With Special References to the Most Preferred Color" *Journal of Social Psychology* 8:185-204. May 1937.
5. St. George, M. W., "Color Preferences of College Students with Reference to Chromatic Pull, Learning, and Association." *American Journal of Psychology* 51:714-16. October 1938.
6. Rudisill, M. F., "Children's Preferences for Color Versus Other Qualities in Illustrations" *The Elementary School Journal* 52:444-51. April 1952.

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Function and activities of a Past State Officers' Club

JOE P. BAIL, Teacher Education, West Virginia University, and
Historian, Past State Officers' Club



Joe P. Bail

SINCE the start of the Future Farmers of America organization 25 years ago, thousands of boys have served as officers of their local chapters and state associations. It is not unusual for a former state officer to meet another and remark about their common experiences and fellowship gained during their days of active FFA membership.

This thought led former state officers of the West Virginia Association of FFA to form an organization for fostering that spirit of fellowship and to direct it toward furthering the present stature of the FFA.

At the Nineteenth Annual State Convention held in 1947, the plans were laid for establishing a Past State Officers' Club. A check of the records showed that over one hundred former officers were eligible for membership. A further check showed many to be in responsible positions in agriculture and related occupations. Many were capable of exerting considerable influence and help to the local chapters and state association. Their ties with the FFA were still fresh in mind and they carried a warm spot in their hearts for the organization that had given them the opportunity for leadership.

With these points in mind, a temporary set of officers was elected and a constitution and by-laws was adopted. The regular meeting was set to correspond with the Annual State Leadership Conference. Committees were designated to study the State Program of Activities to determine where the Past State Officers' Club might give assistance in boosting the State Association. An annual picnic and get-together of members and families was planned. This has developed into an annual event and is held at the site of the new State Youth Camp sponsored by the Future Farmers of America and the Future Homemakers of America associations.

The earliest activity of the club has been the awarding of Past State Officers' pins to retiring state officers. This is done by the president of the Past State Officers' Club at the conclusion of the Annual State Convention. Thus, past state officers can identify themselves by wearing the pin symbolic of the office they held. It is also a tribute to their services to the organization.

The recent act of the State Legislature in establishing a State Youth Camp under the sponsorship of the FFA and FHA associations has proved the value of the Past State Officers' Club. Members voted to build a cottage on the camp

grounds through their donations and solicitations. Many former state officers assisted in campaigns in their local communities and counties to inform the public about the new camp. Progress in securing the funds and support were immeasurably strengthened by the action of former state officers and members.

Although these are only a few possible ways in which a Past State Officers' Club may assist the state association, members of the club feel an organization such as this will prove a real service to the state association.

The Past State Officers' Club of West Virginia is taking its place in this effort. Within the ranks of the group are leaders in agriculture, education, industry and practically any other field you might name. They can truly exert an influence in their homes and communities that will stand solid for their part in developing the leadership needed in our nation today. □

The Community is—

(Continued from page 89)

tive teachers of vocational agriculture before such action is taken. In each community there exist many resources capable of supporting and amplifying a vocational educational program for that community. These resources often go unused, but they are there and waiting to be put into action by the teacher of Voc. Ag. □

Department

Ralph W. Canada recently was named to head the newly created department of Vocational Education at Colorado A. and M. College. The department will be responsible for vocational agriculture, homemaking, trade and industrial and distributive education on both the graduate and undergraduate levels. Its duties will include teacher training in these fields on the campus and throughout the state.

Professor Canada took his undergraduate work at the University of Nebraska and joined the staff at Colorado A. and M. in 1945. He completed his residence requirements for the doctorate during the past year at Pennsylvania State College. He has been representing the Western Region as a member of the Editing Managing Board of *Agricultural Education Magazine*.

Themes for Future Issues

Beginning with January the themes for remaining issues of Volume 26 are as follows:

January—Improving Facilities for Vocational Agriculture

February—Improving Professional Status

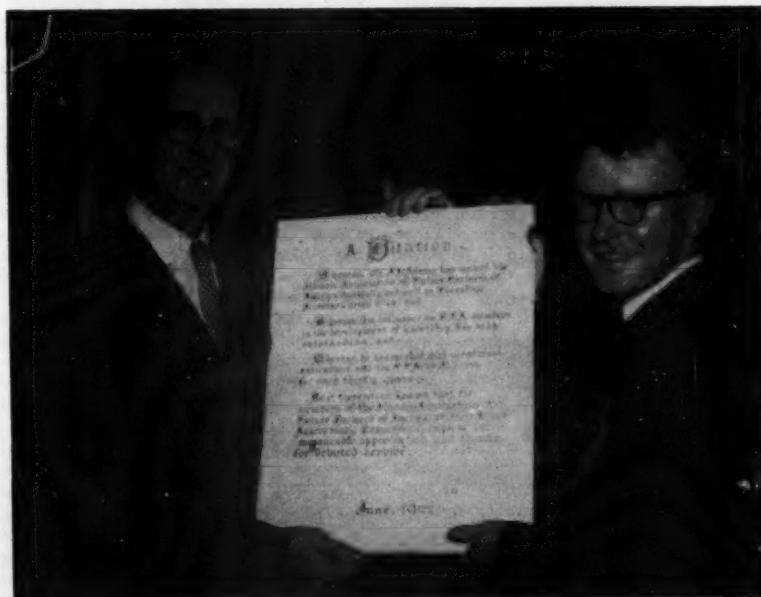
March—Improving Supervised Farming Programs

April—Administering the Program of Vocational Agriculture

May—Evaluating Programs in Vocational Agriculture

June—The Summer Program

Articles appropriate to these themes still can be accepted. Remember that copy is due three months in advance of publication. Illustrations improve the readability of an article.



Mr. J. B. Adams, retiring Executive Secretary of the Illinois FFA, was presented a citation for service by the organization at the recent Silver Anniversary Convention. Mr. Adams taught vocational agriculture for 27 years and has served as Executive Secretary of the Illinois FFA since 1944. The citation was presented by Harlan Rigney, Past State President.

Some challenges in teacher education

T. J. HORNE, Teacher Education, Virginia Polytechnic Institute



T. J. Horne

LOOK around you. See the new faces. Note the absence of the "Old War Horses" who have held the ramparts against all attacks as our program grew and developed. This is normal, for in any battle replacements are sent in for the casualties that occur and to relieve

the tired warriors that they may be allowed some rest. This seems to have been the case in our program of teacher education for vocational agriculture.

The foundation has been well built, strong and secure with ample provision for continuous growth. The growth of these early builders in stature, understanding and abilities have made it easier for their followers to better equip themselves for the role of the teacher educator of our modern times.

Under the influence of these leaders the program was guided through the period of growing pains. During this time we learned that vocational agriculture was more than a course in farm crops or animal husbandry and that a supervised farming program was more than a project of a calf, a sow, or an acre of corn. Towards the end of the first twenty-five years we began to learn that farm mechanics programs could not be developed from such exercises as making what-not racks and milk stools.

It took us several years to learn that a good teacher-education program provides for thorough preparation and continuous in-service training in order that a young man may successfully conduct an instructional program on the local level that will reach high school farm boys through all-day classes and assist them in growing towards the vocation of farming; young farmers through organized instruction that will assist them in becoming satisfactorily established in farming; adult farmers through intensive instruction to improve their farming programs by application of approved practices. The instruction must be applied through a supervised farming program that is adapted to the needs of all members of all groups who receive the instruction to assist them in either growing into, becoming established in, or improving an existing farming operation. In addition, organizations of Future Farmers of America, Young Farmer Associations and Adult Farmer Clubs become a part of the program for individual and community development.

Goals Still to Be Reached

It was only yesterday that a complete program of teacher training in Agriculture was recognized and accepted as providing for:

1. Pre-service training for teachers of vocational agriculture,

2. In-service training for teachers of vocational agriculture,
3. Research for development of the program of vocational agriculture,
4. Preparation of teaching materials for teachers of vocational agriculture,
5. Placement and follow-up of graduates,
6. Improving college training.

Yesterday's recognition failed to carry with it immediate accomplishment for even today a complete program in these six functions is a goal to be achieved.

What is the challenge awaiting a new generation of teacher educators in vocational agriculture? To me it is a responsibility for each man to build a program better equipped to stand the strain of our modern demands. The accumulated knowledge and wisdom through the years can be combined in the plans and procedures to be followed in carrying it out. As I weigh the accomplishments to date in terms of the needs of the future, I envision such a program in terms of the accepted functions of teacher education for vocational agriculture. Let's consider them one by one.

Pre-Service Training for Teachers of Vocational Agriculture

Human relationships have been omitted in our training programs. How long can we go on training teachers and omit a whole area that in a great measure determines the success or failure of teachers?

For several years stress has been placed upon establishment of active recruiting programs to insure an adequate supply of capable, well-prepared beginning teachers. As long as industry continues to recognize successful agriculture teachers and outbids education for their services this problem will be with us. In vocational agriculture we have a field staff of teachers in direct contact with more prospective high calibre students than any other service. The new teacher educators will have to develop and organize these department representatives into a system of recruiters to supply the type of students needed in our educational work in such quantities that we can be selective in choosing teachers to enter our profession. In addition, the institution must provide guidance and counseling service to guide those who should be in agricultural education into the program and those who should not be in agricultural education into a separate field.

Through the years we have talked of adult education and young farmer work. We have talked a good program but have hardly scratched the surface in potential accomplishments. It's time to stop talking and start *doing*. Young farmer and adult work must be given just as much emphasis in our training programs as all-day work. Until we train all teachers to conduct a complete program of vocational agriculture in all three areas then and only then will we

have complete programs conducted in the schools throughout the country. The history and events leading to the passage of the Smith-Hughes Act indicates that it was the intent and purpose of the Act to provide for a continuing program of education for farmers and that every department should provide instruction for those now engaged in farming, those becoming established in farming, and those who at some future date may become established in farming. It has been switched around and the emphasis put on the latter. Instead of developing a complete farming program for all members of the family the training has been broken down into isolated parts and teacher trainers have forgotten that the parts made a whole operation in which we were responsible for providing an educational program. It's time we put the parts together and worked with the whole program and trained teachers to conduct a total program of vocational agriculture in the communities in which they work.

We shall never, in the foreseeable future, be able to adequately prepare teachers in the fields of technical agriculture during their period of pre-service training. Technical agriculture developments are occurring more rapidly than teachers can learn about them, much less master the skill required to apply them, yet the field of agricultural development is just entering into a whole new area opened up by nuclear research. A choice must be made in the courses which are included in the undergraduate program. That choice should include those courses which provide the basis for future growth and development in the field of technical agriculture, not the approved practices that should be applied on the farm today for tomorrow they aren't acceptable.

Supervised farming programs must be thought of as a farming business in which each member of the family has a responsibility for planning, developing and sharing in the whole operation according to his abilities, interests and needs. This means that vocational agriculture should deal with whole farming programs and develop a training situation which enters the boy as a junior partner in a farm business operation in which he can grow and expand during his training period. A partnership between father and son, in which they share in each managerial and operative decision will become a real laboratory teaching situation for adult, young farmer, and all-day class members in which all of them are sharing experiences and working on common problems under the supervision of the teacher. That is a different concept of vocational agriculture from the one we have been following.

When all members of the family share in the whole farm operation, then we can have some worthwhile records in vocational agriculture for each member is then a partner in an operation whose records must be maintained in order to make the agreed upon division of the income from the business at the end of the year. Let's quit dissecting the farming program into insignificant enterprises and teach it as a business operation.

(Continued on page 96)

....Tips that work....

"For Sale" and "Wanted" Sheet

A FEW YEARS AGO our Chapter had a surplus of registered pigs. We decided to publish a "For Sale" sheet and list the pigs that were available, what they were priced at, and the boy's name and address from whom the pigs were available.

We then decided to go one step farther. Why not include items "Wanted" by our members? Just as we had a surplus of hogs perhaps some other Chapters would have a surplus of dairy stock, beef, or some other items wanted by our members. Thus our "For Sale" and "Wanted" Sheet came into being.

It was decided to send this sheet to all Chapters within our region. It was limited to the schools within our region because of the travel involved if perhaps a sale was made to another part of the state. Copies of the sheet are sent to the State FFA Office, the Regional Supervisor, and the local Extension Service representatives so that they know what we have available and what we would like to obtain. Locally the sheet is posted monthly in our two local feed stores where many sales have been made.

The sheet is financed through the pencil sales project within the Chapter. The pencil sales for the month will usually pay for the postage, paper, and stencil required to put out one sheet a month.

The responsibility for acquiring material for the sheet has been assigned to the Chapter reporter. The Chapter officers felt that since the reporter's job in writing news is often irregular this assignment would be a definite monthly responsibility. The reporter assembles the information and the Vo-Ag Instructor cuts the stencil. The stencil is then turned over to the high school commercial department which puts on the FFA insignia and mimeographs the stencils for the Vo-Ag department. The reporter then mails the sheets out to those people previously mentioned.

The results at first were rather discouraging and we thought for awhile of giving up the idea. As our reputation increased (every member who receives an inquiry must write an answer) the idea suddenly caught fire and we have been putting the sheet out regularly for a little over two years. With sixty sheets going out a month, we usually average five to ten contacts with other Chapters or the local extension service representatives. No count has been kept on the contacts made from the sheets that have been posted in the feed stores, but they probably average another ten per month. Many sales have been made and many wanted items located which otherwise we probably would have been unable to obtain.

One month one of our FFA members listed a goat for sale. A 4-H girl in a neighboring county bought the goat and, when the goat gave birth to twins, forwarded our FFA member a birth an-

Rescuing Periodicals from the Discard

FARM MAGAZINES and various trade papers accumulate in considerable quantity in our Agricultural department library as they do in yours.

We make further use of the editions of the year and clear our shelves in a novel, interesting manner which adds to the educational results from these periodicals.

Grasping an armful of magazines I start as many piles as I have students enrolled and add to the piles until our supply is exhausted. Each pile is rolled up and tied with a cord.

On an early visit in summer I leave a roll with each student along with a sheet or two of Agriculture job names and their code numbers. On my second visit I expect each student will have ten or more important articles cut or torn from the stack of magazines supplied him. Each article should have the proper code number, the name of the publication abbreviated and date of issue. These we staple or paste to notebook paper.

Worthwhile additions to the student's scrapbook of printed information pertaining to his agricultural jobs is the result. There is a tendency, which is encouraged, for each student to search among the family periodicals for other items. With these he further augments his treasury of current agricultural information of direct value to himself.

G. H. SALISBURY
Vo-Ag instructor,
Sidney, N. Y.

Don't Forget That Record

A WORKABLE METHOD of recording the miles traveled in your own car on school business is shown in the picture to the right. One advantage of using this system is that you are less likely to forget an entry than you would if using a notebook kept in the car-glove compartment or your hip pocket for this record. This mimeographed mileage-record form can be installed by just wrapping it around the sun visor and fixing in place with a bit of tape. Keep a pencil handy by sliding it between the form and the sun visor.

DALE W. ANDREWS
Teacher Education
California State
Polytechnic College

nouncement. From this one sale quite an exchange of boy and girl correspondence has developed. While we did not have any aspirations to playing Cupid with our sheet, it has brought results in more ways than one, and we plan to continue it.

W. R. NORTON, Vo-Ag Instr.,
Anderson, Calif.



SOIL CONSERVATION DISTRICTS IN ACTION, by W. Roberts Parks, pp. 235, illustrated, published by Iowa State College Press, Ames, Iowa, list price \$3.50.

A practical study of the operation of soil conservation districts in America. The author analyzes the problems facing farmers, supervisors, and technical workers engaged in conservation work, and tells how these problems are being solved. Administrative relationships between the SCS and the PMA are discussed in detail. Typical stories taken from district records illustrate how supervisors across the country are meeting the challenge of their responsibilities.

—APD

* * *

WHAT OUR FARMERS CAN LEARN FROM OTHER LANDS, by Ralph S. Yohe, pp. 164, illustrated, published by Iowa State College Press, Ames, Iowa, list price \$3.00.

This interesting and informative book compares foreign agriculture with what the author, a midwest farm boy, trained as a scientist, and an experienced journalist, had experienced and observed in the United States. The countries visited and reported on include: Great Britain, Egypt, Turkey, France, Greece, Italy, Norway, Sweden, Denmark, Holland and Israel. At a time when this country appears to be faced with the problem of choosing between the seeming expediency of law and the longer, more permanent method of education, the reporting of this author is most opportune.

—APD

"A truly educated man is humble. He does not boast of his learning, nor does he despise those who have never been to school, for he knows that the amount of knowledge that he has is only a drop in the ocean of all that there is to be known in this world. He is conscious of his ignorance, and in being aware of how little he really knows, he proves that he is a wise man."



Some Challenges—

(Continued from page 94)

Is it any wonder that our adult and young farmer programs are still a long way from first base when teachers are being turned into the field as trained individuals without ever having participated in an adult or young farmer class? Vocational agriculture may have to answer for this in the next few years. To emphasize this let us say that funds will always be available to those agencies who are rendering worthwhile services to farmers.

In-Service Training in Vocational Agriculture

In the mechanization of modern agriculture all teachers must be brought up to date and kept up to date in care, operation, and maintenance of farm power and machinery so they can provide adequate instruction for all groups in vocational agriculture.

It will be the responsibility of teacher-educators to provide technical agricultural training programs that will keep teachers up to date with the latest agricultural developments. These programs will be taken to teachers in the field under training conditions similar to those in which they will be used in the vocational agriculture program.

Industry will play a more vital role in teacher education. Industrial resources will be pooled with educators "know how" to provide a more effective training program in those areas in which the objective of education and industry coincide. These services will increase both the scope and efficiency of the in-service training program that will result in a better educational program for farm communities.

The teacher educators will have to adjust their concept of in-service education from that sanctuary of the ivory towered college to that of extension courses taught by staff members in selected centers throughout the state. The teachers' classes, program of work, and community should serve as the laboratory for most effective courses in professional improvement. Why should teachers not be improved by the same principles which he follows in teaching, "learn to do by doing on the job"?

Research for Development of the Program of Vocational Agriculture

There are no walls around this area of responsibility of teacher education. So little has been done and the need is so great that any direction you face there are problems for those who have the ability and training to launch the research work needed to find the solutions to new and improved ways of conducting both the programs of teacher education and vocational agriculture. Every staff member should participate in a well-planned, organized program of research.

Teachers must be freed—freed from both fear of research and from the belief that the only way to do the job is the way the teacher educator told them. Spur their curiosity, prod their ingenuity to do organized, planned research work and experimentation in an effort to find answers to problems and develop better ways of doing the job on

the home farm and in the community. We must develop creative abilities in teachers of vocational agriculture, and assist them in planning programs of research and perhaps one of them will find the gateway to an improved program of vocational agriculture. Research should not be limited to graduate students but organized for individuals and groups of teachers working to find solution to common problems.

Our organization must cast off the fear of constructive criticism and findings that are unfavorable to our program. Such results should be used as the basis for improvement that will correct the deficiencies and strengthen the program.

Preparation of Teaching Materials for Teachers of Vocational Agriculture

Teacher educators are fully responsible for providing teachers with materials essential to the successful program of vocational agriculture. Experiment stations find answers and release them to the taxpayers. That information belongs to vocational agriculture as much as to the extension service. Every department can get it and make it available in forms teachers can readily use. Vocational agriculture must stand on its own program and provide its own services. The program has become of age and is able to assume its rightful place among the recognized programs of agriculture in the United States.

The process of doing a good job and letting the people find out about it is too slow. A good job must be done in all phases of our program and the people must be kept informed of the fact that a good job has been done. Informing the public can be left to chance no longer, but must be an accepted responsibility of our total program and assigned to some individual as a part-time or full-time job.

We must prepare ourselves to enter the field of television. The preparation and training required for a TV production center in every state should be initiated without further delay.

Placement and Follow-up of Graduates

Placement of graduates should be a function of every Agricultural Education Department in every state in the nation. This service operated in conjunction with the State Board should assist teachers in securing positions and in discovering opportunities for advancement that are commensurate with their abilities.

Follow-up should be provided for every new teacher to assist him in establishing and growth on the job. In addition, the teacher educators should constantly study the effective use being made of the materials of the student teacher's pre-employment training so modifications can be made in technical or professional courses of the undergraduate curriculum. Every teacher educator should participate in such a program so he can keep abreast of developments in the program of vocational agriculture in the state. Every effort should be exerted to have the technical agricultural staff who teach the undergraduate classes visit departments and programs of vocational agriculture in operation to familiarize them-

selves with the duties and responsibilities of the vocational agriculture teacher so they will be better prepared to give course content that will best serve the teacher's needs. Technical agriculture professors are very much interested in finding out the effectiveness of the instruction they provided the student during his undergraduate program. The initiative for such a program rests with the teacher educators and administrative staff in vocational agriculture.

Improving College Teaching

Frequently I have heard the statement that the poorest teaching being done in our educational system of today is on the college level. We have a definite responsibility to improve this condition to such a level that our trainees can be constantly subjected to the best teaching techniques instead of the poorest.

Is it any wonder that we have some poor teaching when we have our trainees in one methods class that stresses good teaching, yet through the years everyone literally throws materials at them for which they are responsible for copying down, learning and returning to the professor? Under such a system the odds are against us—the challenge to improve the situation must be accepted.

These are a few of the challenges facing each of us in the years ahead. What is done about them will depend upon us. Solutions to problems have been found in the past so again must all of us search for improvements that will make teacher education and vocational agriculture more nearly approach the ideal for which we are striving. □

Alabama vocational agriculture workers believe one of their teachers has a national record for long job tenure. L. J. Howell has been teaching in the Reform, Alabama, school since 1918.

I Am a Teacher

I am a teacher worthy of the name,
If I can strike the latent spark in youth
And fan into a living flame
Ambition for a life of service and of truth.

If I can really understand
My boys, sufficiently to draw them out,
To make them feel life can be grand,
And influence them in what they think about.

If I can rise where I can see
Beyond a class-book kept each day
And realize that one lad's mark of D
May sometimes mean more effort than another's A.

If I can feel within my heart
That mine is not a mass production job,
But rather one to give each boy a start,
That he may better serve humanity and God.

I am a teacher, if in the years ahead,
Some of my boys, wherever they may be,
Are helped by something I once said
To fight their fight, and win a victory.

WALTER E. CURTIS
Vo-Ag Instructor,
Templeton High School,
Baldwinville, Mass. □

